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[H.A.S.C. No. 108–7]

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108-1 Hearing: [H.A.S.C. No. 10

DEPARTMENT OF ENERGY'S NATIONAL SECURITY PROGRAMS BUDGET REQUEST FOR FISCAL YEAR 2004

HEARING

BEFORE THE

STRATEGIC FORCES SUBCOMMITTEE

OF THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES

ONE HUNDRED EIGHTH CONGRESS

FIRST SESSION

HEARING HELD
MARCH 6, 2003

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THURSDAY, MARCH 6, 2003

DEPARTMENT OF ENERGY'S NATIONAL SECURITY PROGRAMS BUDGET REQUEST FOR FISCAL YEAR 2004

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DEPARTMENT OF ENERGY'S NATIONAL SECURITY PROGRAMS BUDGET REQUEST FOR FISCAL YEAR 2004

House of Representatives,
Committee on Armed Services,
Strategic Forces Subcommittee,
Washington, DC, Thursday, March 6, 2003.

The subcommittee met, pursuant to call, at 9:05 a.m., in room 2212, Rayburn House Office Building, Hon. Terry Everett (chairman of the subcommittee) presiding.

OPENING STATEMENT OF HON. TERRY EVERETT, A REPRESENTATIVE FROM ALABAMA, CHAIRMAN, STRATEGIC FORCES SUBCOMMITTEE

Mr. Everett. The hearing will come to order. The Strategic Forces Subcommittee meets today to receive testimony on Department of Energy's (DOE's) fiscal year 2004 budget requests, atomic energy defense activities.

I welcome Under Secretary Card, who I believe is testifying for the first time before the Armed Services Committee, and Assistant Secretary Roberson, who I understand is from my district in L.A. And for those of you who do not know where that is, that is lower Alabama.

Under Secretary Card will provide testimony on the Department of Energy's request for defense environmental management. So, perhaps, that is a poor choice of words. As I understand, the department's focus is not stock management, but rather clean up and closure.

I also want to welcome Dr. Beckner from the National Nuclear Security Administration (NNSA). Dr. Beckner is the Deputy Secretary of Defense Programs. Weapons activities compose over 70 percent of the $8.8 billion request for NNSA. And I am competent that if members have questions that fall outside Dr. Beckner's expertise, he will get answers for us.

We have a lot of ground to cover today. And I want to allow each of our members as great an opportunity as possible to ask questions, so I will be brief. Likewise, I would ask our witnesses and members also to be brief with their prepared remarks and questions. The entirety of all written testimony will be entered into the record.

Under Secretary Card has done the admirable task of cleaning up a Cold War legacy of 114 contaminated sights resulting from more than a half-century of R&D production testing of nuclear weapons. The magnitude of the problem is apparent when one considers that 40 percent of the funds requested for atomic energy activities, $6.8 billion, support this undertaking. At a time when our armed forces are engaged all over the world, it is more important than ever to ensure the prudent use of defense dollars.

As a result, at the beginning of last year the life cycle cost estimates for clean up of legacy sites stood at $220 billion with work at some of our most contaminated sites not reaching completion until 2070. In fiscal year 2003, the department embarked on an aggressive reform effort to refocus emphasis from risk management to risk reduction. The current plan calls for completion of all remediation efforts by 2035, at a cost savings of more than $50 billion.

Now the record is replete with attempts to reform our environmental remediation programs. But in this case those efforts are being led by the architects of the real success story at Rocky Flats, Under Secretary Card and Assistant Secretary Roberson. Rocky Flats is now on schedule for completion in 2006, 50 years ahead of schedule and $30 billion below the original baseline. So I am cautiously optimistic, and look forward to hearing of your progress across this complex.

Dr. Beckner, I know you have challenges too, putting our defense nuclear complex back in order, especially our production facilities, and continuing to support certification of the nuclear stockpile without testing. We expect nuclear weapons to remain a cornerstone of our national security posture for many years to come.

Our science-based approach to stewardship is proven a difficult technical challenge. I understand we are making progress, but uncertainty grows with the time elapsed since our last tests. As the number and variety of weapons in the stockpile come down through retirements, it is more important than ever to maintain confidence in those weapons remaining. Frankly, we are in a race against time with our science-based stewardship program, a race with an outcome that is far from certain at this point. So I look forward to your assessment of where we are today, and where we are headed in the future.

I have to apologize. It is my fault that our ranking member, Mr. Reyes, is not here to give his opening statement. The statement will be put in the record when he arrives. He could be a little late. That is due to a rescheduling that the chairman did, and it had a conflict with Mr. Reyes.

Under Secretary Card, the floor is yours.

[The prepared statement of Mr. Everett can be found in the Appendix on page 33.]

STATEMENT OF HON. ROBERT C. CARD, UNDER SECRETARY OF ENERGY, ENERGY, SCIENCE AND ENVIRONMENT; HON. JESSIE H. ROBERSON, ASSISTANT SECRETARY OF ENERGY, ENVIRONMENTAL MANAGEMENT AND DR. EVERET BECKNER, DEPUTY ADMINISTRATOR FOR DEFENSE PROGRAMS, NATIONAL NUCLEAR SECURITY ADMINISTRATION

Secretary CARD. Mr. Chairman, members of subcommittee, as Under Secretary of Energy, Science and Environment at the Department of Energy, it is a pleasure to appear before you today to discuss the President Bush's fiscal year 2004 budget request for Environmental Management (EM). As you noted, Assistant Secretary Roberson is also with me here today, to answer questions where I may have a recusal due to my previous work experience.

Mr. Chairman, let me begin, as I have noted to you earlier, by expressing my appreciation for the hard work of this subcommittee. Both in my former life and now at DOE, I have had the pleasure of working with many members of this subcommittee on both sides of the aisle. As stated in written testimony, this subcommittee played a pivotal role in piloting the accelerated clean up approach at the closure site. And we are enthusiastic about the opportunity to work with you to complete the transition of the Environmental Management Program.

To skew our tons of orphaned weapons materials, slash, decades of risk exposure to the workers in public to make available tens of billions of dollars for other safety and security priorities for the nation, we need to continue the restructuring of the EM Program that was begun with the fiscal year 2003 request. This effort has been personally called for and directed by Secretary Abraham who is committed to the safety and security of the workers and public at DOE sites.

Our acceleration strategy will produce unprecedented results; require substantial change in our operations to achieve it. This change is underway. We are working to focus DOE requirements infrastructure and support functions to support clean up goals. We are enhancing our clean up contracts. We changed the work logic to focus on highest risk activities first. We revised the organization, personnel and business process structure of EM Program. And we are changing responsibilities of the EM Program by reassigning program elements that are not completion oriented. And some of this evidence is in our fiscal year 2004 request such as moving the Idaho National Engineering and Environmental Lab (INEEL) to Nuclear Energy and forming an independent office of Legacy Management to focus on long-term stewardship site where the initial, major clean up effort has not been completed.

Much more is required, but as I noted earlier, we have also proposed a new funding structure in fiscal year 2004, and that is where this committee plays a key role. We encourage your support of that structure which will move us the next step towards reform of the program. We also, of course, ask for your support for our $7.2 billion total request for the EM budget this year. And I want to note that this request was based on substantial community support and progress that we made last year. The administration views it—a number closer to $5.9 billion is the base funding for this program, and our support for it is contingent on the continued progress that we make in the community's support towards ending the program someday soon.

We know that the adjusted fiscal year 2003 appropriation was late in coming and came in substantially under the President's request. Because so much of the actual clean up work is in the margin, this could prove problematic for accomplishment of interim and overall program goals unless our search for a mitigation is successful. If we cannot substantially meet these goals, and as I said above, we cannot and should not count on the administration's support.

Finally, in addition to this committee's fine work on the program, we want to acknowledge the outstanding support we received from the communities, regulators, contractors and workforce at DOE sites. Change of this magnitude is very difficult and they are making solid contributions while helping us improve our safety record to accompany the increased risk reduction performance. By and large, they understand the unique opportunity they have to contribute toward a dramatic acceleration in risk reduction while returning tens of billions of dollars for other important activities to benefit the nation's safety and security.

I look forward to your questions. Thank you.

[The joint prepared statement of Secretary Card and Secretary Roberson can be found in the Appendix on page 37.]

Mr. EVERETT. Thank you, Secretary Card.

Dr. Beckner, would you please proceed with your testimony?

Dr. BECKNER. Thank you, Mr. Chairman and members of the subcommittee. It is a pleasure to be here today to review the President's fiscal year 2004 budget request for the Stockpile Stewardship Program (SSP), the National Nuclear Security Administration.

For the last seven years this Stockpile Stewardship Program has allowed the Secretaries of Energy and Defense to certify to the president that the nation's nuclear weapons stockpile is safe, secure and reliable, and that there is no need to resume underground testing. Thanks to the dedication of our 25,000 men and women across the country, using the best science and engineering tools, we have a more complete understanding of the health of the stockpile with each passing year. We annually withdraw approximately 100 weapons from the active stockpile and perform a comprehensive, diagnostic exam on those at the Pantex plants in West Texas. This examination studies the hundreds of parts that make up modern nuclear weapons. Most of the weapons are then reassembled, some are destructively tested, but the net result is that we get annually new data on the condition of the stockpile.

To ensure that the stockpile continues to meet its military requirements, NNSA also has a comprehensive refurbishment program known as Stockpile Life Extension. As you know, some of the weapons are now getting quite old. It is presently working on four warhead types in the stockpile, the W87, the W76, the B61 and the W80. For those of you who do not carry those numbers in your head, the W87 is on the MX Missile. The W76 is the Trident I, on the Trident submarines. The B61 is in both a strategic and tactical bomb form. And the W80 is a cruise missile. So we have quite a variety and broad program underway on Life Extension. The goal there, when those weapons are refurbished and put back into the stockpile, is to be able to do so with an expected life of an additional 30 years. Just to give you an update on that, in the case of the W87, about half of those warheads have now been refurbished, gone through the Life Extension Program (LEP) and have been returned to the Air Force.

In response to concerns of this subcommittee, as a matter of fact, I should also state that NNSA is also restoring the full suite of manufacturing capabilities needed to respond to any stockpile contingency.

Two years ago the administration, with the support of Congress, established a ten-year program designed to eliminate maintenance backlogs. That program is also underway and doing very well. And we can discuss that further if you would like.

We are installing an interim pit production capability at Los Alamos. I know there is a lot of interest in this activity. Later this year, in fact, we will have delivered to us the first certifiable W88 pit from that activity at Los Alamos. This will be the first certifiable pit made by the United States since the shut down of Rocky Flats in 1989. And as a follow-on to that, of course, NNSA has begun work on design and sighting for a modern pit facility that will be capable of manufacturing all pit types for the current stockpile and any new requirements should they arise.

And then to complete the materials supply story, NNSA will begin producing new tritium for the stockpile by eradiation of tritium-producing rods in a TBA reactor this fall.

Stewardship is more than just maintenance and refurbishment; it is also about the future. With the support of Congress, we are investing in leading-edge, scientific and engineering tools required to support the stockpile now and into the future. Three areas deserve special attention, first, the advanced scientific computing initiative, where we are working with U.S. computer manufacturers to acquire the world's fastest and most capable computers to address nuclear weapons performance issues. Second, we have now begun to get data from the dual-access, radiographic, hydrotest facility at Los Alamos, the finest in the world in getting CAT Scan-like images of weapons implosion processes. That is, provides us data to support the activities in the computing initiative. And then later this year, the world's most power laser, the National Ignition Facility (NIF), will begin to carry out experiments at the Lawrence Livermore National Laboratory (LLNL) in support of the weapons stockpile, and if construction continues to be on schedule and on cost.

Now, let's talk a little bit about the future. As the Nuclear Posture Review (NPR) highlighted, the threats we face today are dramatically different from those we faced a few years ago. To ensure that future American presidents have deterrence options to deal with the threats, we have a modest advanced concepts program, $21 million, underway. $15 million will be allocated to the Robust Nuclear Earth Penetrator (RNEP). That is, I think, as some of you know, a program to examine where or not two existing warheads in the stockpile, the B61 and the B83, can be sufficiently hardened through case modifications and other work to allow the weapons to survive penetration into various geologies with high reliability before detonating. The remaining funds will be divided between the weapons labs for studies of other advanced concepts.

Mr. Chairman, that concludes my remarks. Let me extend an invitation to each member of the committee to travel to one or more of our labs or plants to get a more in-depth appreciation of the science and technology that is being used to keep this nation's nuclear weapons stockpile safe, secure and reliable. I'd be pleased to answer questions.

[The prepared statement of Dr. Beckner can be found in the Appendix on page 47.]

Mr. EVERETT. Thank you very much.

I, at this point, would like to recognize my friend, Mr. Spratt, for an opening statement. And I will again emphasize that this change in time was the chairman doing that. And that is the reason that we are kind of in the situation we are in. And Mr. Reyes was previously obligated and, to be honest with you, it was one of those things that he could not change, but he will be with us shortly.

Mr. SPRATT. Thank you, Mr. Chairman, very much. And I apologize for my tardiness. I was at another meeting preparing for a markup on another bill and could not get out in time. And I am substituting for Mr. Reyes who has an obligation of his own, although I understand he will be along soon.

Let me quickly say that I have been following the Department of Energy for some time. And I can say from experience that with the exception of the new Homeland Defense agency, there may be no other agency in the government with the size, diversity, scope and mission responsibilities that we find in the Department of Energy. All of these responsibilities are important, but the mission with which we are primarily concerned here on this committee is stewardship over our stockpile of nuclear weapons and the complex of facilities that supports that stockpile.

I will be brief, but let me just touch on a few concerns I have about the fiscal year 2004 budget request. Remediation of waste is an awesome and terribly expensive task, but I understand we are about to turn the corner in terms of being able to fix both cost estimates and schedules more accurately. And I am glad to hear that, particularly with the so-called accelerated cleanup effort.

I remain interested in hearing how we can trim decades off cleanup schedules at some of our sites with no substantial increases in funding for EM activities and no increased environmental health risk.

I am concerned about implementation of legislation Congress approved two years ago to provide compensation for workers made ill by working in the nuclear complex over years past. I understand that the Department of Energy lags behind the Department of Labor in processing claims for assistance. And I think it would be useful if we could get an update on this vital matter.

As to NNSA, the budget appears to be sort of a mixed bag. It appears that some of the essential elements of the stockpile stewardship are well funded. We do not have to be concerned, for example—and I think this is good—about funding for support of the National Ignition Facility or programs to keep that activity on schedule. The budget request supports continued life extension work on the four warheads critical to our nuclear deterrent, which Dr. Beckner just noted. The Navy's nuclear programs appear to be fully funded. I understand that this request supports irradiation of the first tritium-producing burnable absorber rods at the Watts Bar reactor, so that is progress on that front.

I am pleased to note also that additional funds are requested to safely ship nuclear weapons, nuclear weapons components and nuclear materials in a more enhanced security environment. These are positives. We had a hand in seeing it happen and I think we can all feel good about it.

I am troubled that in some areas the budget development process seems to be getting ahead of the policy formulation process. That is what we would not expect to see in an area so critical as national and international security of—nuclear security, in particular. Specifically, this budget seems to provide funds for advanced concept work. And if that means work on new nuclear weapons, I think it opens a Pandora's box of strategic considerations.

There is also some $15 million in the budget to request studies on the Robust Nuclear Earth Penetrator. Why is that level of funding needed in light of prior year funding and all of the work that had already been done? More importantly, why are we plowing ahead with this nuclear earth penetrator?

I want to offer, for the record—I have a copy here somewhere and I will provide it for the record—I ask unanimous consent that it be included in this hearing record——

Mr. EVERETT. Without objection.

Mr. SPRATT [continuing]. An excellent article that appeared in Oakland Tribune yesterday by Ian Hoffman. The article ends with a quotation by Dr. Sidney Drell. Sidney Drell, as everyone knows, chaired the Commission on the safety and security of our nuclear weapons. He is a member of JASON (JASON Foundation for Education). He is a long-term advisor to the Department of Energy and the Department of Defense. Here is what Sid Drell says, "I cannot think of the mission where a low yield nuclear weapon would be useful. You should not blur the distinction between nuclear and conventional weapons. It does not matter to me whether it is one kiloton or 100 kilotons, it is horrible thing. Once you have used it, you have crossed the Rubicon."

I am also dismayed to see that the budget adds funds to reduce the nuclear readiness posture period from 24 to 18 months. This is done in spite of language that we put in the fiscal year 2003 National Defense Authorization Act directing the Secretary of Energy to submit information to the Congress on the rationale and cost for sustaining a test readiness posture at several different time intervals so we could choose among them.

The intent of last year's language was that the department would provide the requested information and Congress would then be allowed time to have an informed debate on what our test readiness posture would be. I understand that there may be a trade off here. But to the extent we compress the period for test readiness, we may be actually encroaching upon talent needed to have a robust Stockpile Stewardship Program. We need to very carefully weigh that trade off.

I understand that the committee's leadership wants to reserve debate on nuclear policy matters for the full committee. I do not disagree with that. But this subcommittee has a particular obligation to look at the programmatic implications of the budget requests and that is why I raise these questions here.

Mr. Chairman, thank you very much for this opportunity to pose these questions to our witnesses.

And thank you, all of our witnesses, for your presentations this morning.

[The information referred to can be found in the Appendix on page 57.]

Mr. EVERETT. Thank you very much.

I will now begin the questioning. Of the members who I have not discussed this with, I am pretty strict on the five-minute rule for both the questions and answers. We will have as many rounds as the members would like to make sure they get all of their questions in. And I will begin.

Dr. Beckner, this is for you. On December the 17th, 2002, Acting Administrator Brooks announced a reorganization of NNSA's field structure that will streamline management and clarify lines of authority and accountability by eliminating one layer of management by the end of fiscal year 2004. Can you provide an update on your progress? And is there anything that Congress can do to help?

Dr. BECKNER. Well, first as—an update on progress—the plan is being executed. That layer of management has already been removed. The changes have occurred in the field, as well as at headquarters. The new sites office structure is in place and operating. The new service center fully reorganized and functioning and the headquarters, tied together with it all, as well.

We have begun a program to reduce staff. And we have a target to get that staff down by about 25 percent by the end of next fiscal year.

So it is up and running. And at this point in time, I would say we think it is occurring pretty much as we expected it to. We do not have any hurdles that we do not understand how we are going to get across right now. But it is too soon to say how easy or, perhaps, difficult it may be to reach our manpower reduction targets. So we will probably want to keep you informed on that as the year goes on because by this time next year it will be fairly critical that we have a large number of people off roll who are presently making decisions as to what they want to do about that.

Mr. EVERETT. Can you give me any figures as to where you are at this moment?

Dr. BECKNER. Actually, I cannot because we could not get it underway—we could not get the action underway to offer buyouts for employees to make it a bit more attractive until about two weeks ago.

Mr. EVERETT. Okay.

Dr. BECKNER. We finally got authorization from OPM (Office of Personnel Management) to proceed so I do not actually have the numbers, but we could certainly do that, I would say, in another month or so and give you an update if you would like.

Mr. EVERETT. I would appreciate it.

Dr. BECKNER. Okay.

Mr. EVERETT. The United States is the only nuclear power without the capacity to produce all the components of nuclear weapons. Production complex has not produce a certifiable plutonium pit since 1989 or tritium since 1988. The pit, as we know, is required to initiate a thermal nuclear explosion and tritium and is necessary to boost the performance of the pit.

Can you describe for us progress toward restoring these capabilities to the defense nuclear complex? At what point does the absence of these capabilities become a serious critical nuclear—national security concern?

Dr. BECKNER. Yes, I can answer that question. Last year we produced five pits in the program, which is moving forward to provide a certifiable pit this year. I think we are within one or two months of having a certifiable pit in hand. We have it targeted for, more or less, summertime this year. I think we will beat that date.

And, as such, we will then be moving forward to actually provide a certified pit in 2007. So the work at Los Alamos, I would say, is now moving smoothly.

As to your question as to at what point in time this might be a critical shortcoming if we do not have a fully functioning production capability, I think that is really hard to say. We do not have any requirement right now, other than a rather small one associative with the W88, which causes us to require new pits anytime soon. So mostly this is a matter of having a capability in hand as a hedge against unforeseen difficulties that may show up in the future.

I think we all agree it is a very important hedge against unforeseen future events, so we are pushing very hard on it. But I also believe it is coming along rather nicely.

Mr. EVERETT. Thank you.

Secretary Card, concerns have been raised about the accelerated cleanup, that it might mean cleanup to a lower standard. How do you address that?

Secretary CARD. Well, first, let me just say that that is not our plan. The key thing that we are trying to look at is what are the chemical and physical properties of the material and address them in a risk-based standard. So where some of those comments may come is where we see a process in place that tends to treat material in a different risk category than physicists and chemists would put it, then we want to have a dialogue with the stakeholder to determine a path forward on that. But we are not compromising the cleanup levels to accelerate the cleanup.

Mr. EVERETT. I see my time is up.

Mr. Thornberry.

Mr. THORNBERRY. Thank you, Mr. Chairman.

And I appreciate our witnesses being here.

Dr. Beckner, my questions and comments are going to be directed to you. Like Mr. Spratt, I have some concerns about this budget, although some of my concerns are a little different than his.

When I look at not just this year's budget, but the program over the longer term, I am concerned about how we keep our nuclear deterrent credible because what we have are Soviet Cold War era weapons. And as more and more countries and groups develop or obtain Weapons of Mass Destruction (WMD), the concern is that they will not see our nuclear weapons as a credible deterrent—that in some ways we will be self-deterred and in other ways, they will not see that as something serious to them. So not to look ahead and think how we keep our nuclear deterrent credible in a changing world full of proliferation seems to me to be short-sighted.

So from that perspective, my concern is that your budget request only includes $21 million for advanced concepts, $15 million is a slight alteration of an existing weapon. That—if my math is correct, that leaves $6 million out of this huge defense budget, which you are part of, which is looking ahead to how a nuclear deterrent can be credible in the future. And I am concerned about that. I do not think it is nearly enough.

Let me ask about some specific areas. One of the things we asked for in last year's bill was some specific time frames to shorten the nuclear testing preparation time. And, as I recall, you were to—the NNSA is to give us a report about how long it is going to take to be ready to test with a variety of things. Where is that report?

Dr. BECKNER. Well, an early version of that report was prepared last summer. And we can certainly be certain that that report is in your hands in the near future. I would prefer not to specify exactly the time, but we will give you a more specific time shortly because we do have the information in hand.

We have been structuring a program, which you refer to, for how we would shorten the time. And it is a part of that, of course, to understand the costs associated with that. You will note in the material that we have submitted with our budget that we are targeting 18 months—that appears to us to be an optimized plan—and to get ourselves into that configuration within 36 months. But the report, in its entirety, does look at other options—six months, 12 months, 18 months, 24 months.

So we have started to put together our own plan for that and we will give you that report.

Mr. THORNBERRY. Thank you.

The chairman asked you about some of the management restructuring within NNSA. The last part of his question that I did not hear an answer to is have you identified any additional authorities that Congress needs to give or could give that would help make that go smoother—speed it up—be an improvement in the management problems that you have identified?

Dr. BECKNER. As of yet, we have not.

Mr. THORNBERRY. Good.

Is there a review about continuing to have the University of California manage the Los Alamos contract? And where is that?

Dr. BECKNER. Well, Mr. Card can speak to this, as well. The Secretary has instructed Mr. Card and Ambassador Brooks to report—I am sorry—he has instructed Deputy Secretary McSlarrow and Ambassador Brooks to report to him by the end of April with a recommendation on the next steps that should be taken with regard to that contract.

Mr. THORNBERRY. Okay.

And let me ask about this area—you mentioned in your statement that working together, Congress and the administration has developed a facilities and infrastructure recapitalization program to try to make up some of that gap that has grown in facilities all across the complex. As I have tried—I have not talked with the labs. I have checked with some of the plants. And it seems that they are concerned that their requests for maintenance—operation of facilities budget has been lessened. And the concern is that basically it is—they are losing here, gaining here, we are not making any progress.

Are we making progress?

Dr. BECKNER. Well, I believe we are. I have not heard that complaint myself. We do have two elements that support the infrastructure and maintenance activities. One is the one that is traditionally within defense programs called—it goes by the acronym RTBF (Readiness in Technical Base and Facilities)—it is a specific budget line that I am sure you are aware of. The new budget line that now appears is this one called FIRP (Facilities and Recapitalization Project), which is the facilities and infrastructure. So you have to look at the combination of those two lines to see the total amount that we are spending on infrastructure and maintenance.

The other thing that is occurred is we now have a working activity within NNSA to be sure that we are getting those two activities tied together properly because the intent when this new budget line for facilities and infrastructure was set up was that it would last only 10 years. So we are now structuring the plan so that that transition occurs. We are now into the second year.

Mr. EVERETT. The gentleman's time has expired.

Mr. Bishop.

Okay.

Mr. Rogers.

Mr. Franks.

Mr. FRANKS. Dr. Beckner, I just had two questions and I certainly appreciate your presence here today. But related to recovering as much as possible weapons that were a product of the old Soviet Union, I see that there is some indication here—can you just expand a little bit on your efforts in that regard?

Dr. BECKNER. I really cannot. I think we need to take that question for the record. The person who could handle that better would be either Ambassador Brooks or one of the members of the nuclear nonproliferation part of the NNSA, I believe. I do not normally have responsibility for activities inside the Soviet—or the former Soviet Union (FSU).

Mr. FRANKS. All right, sir, thank you.

Seems to me that one of the most fundamental paradigm changes in the entire strategic nuclear circumstance would be related to missile defense—our ability to deal with incoming missiles because of the offensive capabilities certainly are there and just one deliverable nuclear weapon represents a profound threat to a society of our type. And I just am wondering what is the emphasis on your program?

And, you know, forgive the freshman naivete if this is not an area that you deal with a great deal. But that seems to me to be one of the most critical elements that we could give our president would be the ability not to have to respond in a more escalating fashion if, indeed, either a rouge missile or some terrorist or some outlaw state were to try to launch a missile against us.

Dr. BECKNER. As yet, there has been no requirement from that program for missile defense for any type of nuclear weapon to be used as a part of that defensive system. So, as yet, we have no program activity in support of that. I agree with you, it is an important element. But, as yet, they do not indicate to us that they would anticipate any requirement to have a nuclear component as a part of that defensive system.

Mr. FRANKS. Thank you, Mr. Chairman.

Mr. EVERETT. Thank you.

Mr. Spratt.

Mr. SPRATT. Thank you, again, for your testimony.

Let me ask about the nuclear earth penetrator.

Dr. BECKNER. Yes.

Mr. SPRATT. Have you seen the article in the "Oakland Tribune"?

Dr. BECKNER. Actually I have not, although I heard it was being written, so I think I probably know what is in it.

Mr. SPRATT. Pretty good article, I mean, it does not—it is not one of these frightened pieces that——

Dr. BECKNER. Right.

Mr. SPRATT [continuing]. Claims the sky is falling, but it raises some serious technical points and backs them up with some serious people in this field.

Among other things, it says, "Computer simulations show low-yield nuclear weapons can collapse shallow buried bunkers that survive conventional weapons. And they will cause less collateral damage than normal strategic nuclear weapons that are thousands of times more powerful. But unless an adversary can be counted on to design the bunkers for easy annihilation with few thin walls and simple geometrics, nuclear weapons, even neutron bombs, will not guarantee destruction of anthrax, nerve gas or other lethal contents."

"Instead, scientists say even a low-yield nuclear strike on a bio-warfare storage bunker will dig a large, hot crater and blast a witches brew of weaponized germs and radioactive fallout into the air." Someone who used to be at Lawrence Livermore, Michael May, said, "It all vents to the surface." And I think people are coming to this conclusion more and more.

Bob Plurafoy, who has been around for a long time—has been effective on a lot of these issues said, "More research is not likely to lead to any real breakthroughs. The dirt is not going to get any softer."

Professor Nelson at the Counsel on Foreign Relations as a physicist says, "You end up deploying the very stuff you are trying to destroy. It could actually go a long ways downwind and affect your own populations. It produces so much fallout that if you use it near a city, instead of killing 150,000 people, as in Hiroshima—100 to 150—you would kill 40 or 50, still a substantial number."

Do you take issue with any of those descriptions of this potential weapon?

Dr. BECKNER. Well, I might not say it quite the way they have said it. But it is my view that this is an extraordinarily difficult problem that we are now beginning to understand we have to deal with. There is a lot of intelligence, as I am sure you are aware, that there are buried facilities which this country will be increasingly concerned about in the future.

I think we have to explore all the options available to us to deal with those potential targets. And obviously nuclear weapons cannot be viewed as a trivial or as a simple solution to those problems.

We do not know whether there will be a scenario which the DOD will conclude calls for them to ask such weapons be developed, but I think we have to study the problem and really, at this point in time, this $6 million which representative Thornberry referred to earlier for concept studies and the $15 million that is specific to the RNEP program is a level which allows us to begin to understand the problems.

I would agree, this is an extraordinarily difficult problem. And it will be quite some time, I think, before we would be able to sit here and recommend to this committee that specific weapon development should be undertaken.

Mr. SPRATT. Well, let me ask you this, is it necessary at this time for you to complete the work or to carry out the work that you would propose to undertake under the advanced concept funding provided by this budget request? Is it necessary to repeal the limitation on testing the prohibition on testing below five kilotons?

Dr. BECKNER. In order for us to conduct the program that we have outlined in fiscal year 2004, the answer to that is no.

Mr. SPRATT. Thank you very much.

Let me ask you one other question about pit production. The department—I believe this budget request includes funds for an EIS (Environmental Impact Statement) for a pit production facility. We have building TA55 at the Los Alamos right now, which can do limited production and I suppose Los Alamos is one of the sites that you will examine.

Dr. BECKNER. Yes.

Mr. SPRATT. Years ago when Rocky Flats was shut down I suggested, "Well, you can put the work in TA55 in the interim until you restart the building at Rocky Flats." And I was an instant sensation on New Mexico television. [Laughter.]

I had the Santa Fe reporters calling me. Have not heard from them since. But anyway, if you want to know how you get your name in the paper——

Dr. BECKNER. There you go.

Mr. SPRATT [continuing]. Talk about TA55.

I know you cannot prejudice the selection process. I would think that Savannah Riverside, in my state, is probably the leading choice for that particular facility. But the question I have to ask you is—is it really needed? Have we come to the point where we have concluded that we have to have this facility? Has that decision, itself, been made?

Dr. BECKNER. No, that decision has not yet been made. The Secretary is—will be asked to make that decision next year, as we proceed with the NEPA (National Environmental Policy Act) process and reach the point in time where it is appropriate to make a site selection and for him to make the decision to proceed with the project. All that is ongoing at this time is the study to understand the environmental situation at each of the candidate sites and—for us to do the conceptual design for the facility so that you can do a proper analysis. That will be provided to the secretary and he will make that decision.

Mr. SPRATT. How far off is a decision as to whether or not a production facility is actually needed?

Dr. BECKNER. Well, that will be a part—I——

Mr. SPRATT. Yes.

Dr. BECKNER [continuing]. As I see it, that will be a part of that decision next year.

Mr. SPRATT. Of the EIS itself? Or——

Dr. BECKNER. Well——

Mr. SPRATT [continuing]. On the EIS is just a——

Dr. BECKNER [continuing]. If, you know, if we are going to proceed with the project, which will be the proposition that will be put to the secretary—if we are going to proceed with it, then, obviously, we will have to have the justification for the facility.

Mr. SPRATT. Is part of this decision-making process you are looking at what went wrong with the last building you built? I know the labs, Los Alamos in particular, felt that they were excluded from the design process. And——

Dr. BECKNER. Well I think that problem has been cured. Los Alamos is, obviously, now heavily engaged in all of the technologies required to make pits. And they are very much in the middle of this conceptual design activity as we try to decide what size and what the configuration would be for that facility.

Mr. SPRATT. Could I ask one more question?

Mr. EVERETT. All right.

Mr. SPRATT. With respect to the time frame for resumption of testing, how much lead time do you need to actually design the diagnostics and make the preparations, ask the right questions and so forth? As I understand it, you will still submit the information to us that we have requested——

Dr. BECKNER. Yes.

Mr. SPRATT [continuing]. Even though the funding sort of prejudges the outcome.

I was told last year by your associates at the labs that there is a tradeoff here—that you have finite resources of truly qualified physicists and if you go with a speeded up testing—preparation schedule that you will be taking people out of the Stockpile Stewardship. And to some extent, it will suffer if you favor this speed up acceleration of the test ban preparation.

Dr. BECKNER. I do not think so. Most of the activity is one of being sure that we have the crew available and trained at the test site to proceed with the actual physical installation. The other side of it is to have the laboratories think ahead of what they would need in the event that such a test was required. But I do not see that as a conflict. It causes you to think through problems that have been thought through in the past and need to be thought through again. There is a lot—you know, a long time has passed now. We have gotten a lot of people who were not even around the last time—the last test.

Mr. SPRATT. Okay. But the lab director has not expressed concern to you that if you take personnel out of Stockpile Stewardship and put them in the test ban——

Dr. BECKNER. No, they have not.

Mr. SPRATT [continuing]. Testing readiness——

Dr. BECKNER. They have not—not to me.

Mr. SPRATT. Okay. Thank you very much.

Mr. EVERETT. Thank you.

Mr. Meek.

Mr. MEEK. Thank you, Mr. Chairman.

Dr. Beckner, I guess I wanted to kind of follow Mr. Spratt here today about are you confident that the Stockpile Stewardship Program investments will yield the results that we would like to have right now? Because I think that is a very important point and I want you, if you could, elaborate more on that.

Dr. BECKNER. Okay. Well, first, the lab directors—all three of them—developed a letter which eventually gets conveyed to the president annually, certifying that the stockpile is safe and fully reliable. That is been supplied every year now since the last tests were conducted.

We have added a large number of bigger computers, bigger experimental facilities, and we continue to do that. The assurance, I think, will be on a year-by-year basis. I do not know any way that anyone will ever be able to sit here and say, "Well, I am sure that for the next 20 years everything is fine." What we are going to do is continue to monitor the stockpile as thoroughly as possible with all the best tools we possibly can and to study with computers and experimental facilities, other than full-scale nuclear testing, of course, and tie that all together.

And I think the best description for it at this point in time is "so far, so good."

Mr. MEEK. I am sorry—so you feel that at this time, we really do not—you do not see any more enhancements that we can put towards the program? You are comfortable with it? If you had any ideas as it relates to enhancement, you can share them with us now?

Dr. BECKNER. That is correct. We have submitted this budget. It is a five-year budget, as we provided, as a matter of fact. And we believe this program is fully contained within that request.

Mr. MEEK. Thank you, Mr. Chairman.

Mr. EVERETT. Mr. Turner.

Mr. TURNER. Thank you.

Secretary Roberson, I appreciate the information that you provided us concerning the environment remediation efforts that you are undertaking. And I understand, of course, the issues of the need to make these sites safe and also for cost containment because we know that cost containment in these activities results in an ability to enhance the other activities at the Department of Energy.

In my district is the Miamisburg Mound.

Secretary ROBERSON. Yes.

Mr. TURNER. And the Miamisburg Mound has been somewhat a model, from what I understand, as to cooperation between the community and the Department of Energy in that the facility is being made available for the community for economic development purposes.

Of course the issue of the speed at which the facility is decontaminated has had an impact both in the Department of Energy for cost and on the community's efforts in transforming that site for economic development purposes.

And I have two questions for you—one is which—as that process of making the facility available to the community has been slowed, monies that are available to the community for the redevelopment of the site have been—of course, been withheld by the Department of Energy. And there is a concern that those funds may be lost because the community has not been able to use them and access them while the project has been slowed to the Department of Energy's efforts.

Could you talk about those funds and how they might be able to be available to the community still?

Secretary ROBERSON. Thank you, Mr. Turner.

We have, indeed, had a very active and positive relationship with the city of Miamisburg and I expect that that relationship will continue. It is one of our model communities and one of our model projects. And I am pleased to say that we have—I believe that we have demonstrated our commitment and ability to fulfill our obligation both safely and in the essence of time.

The department, as I have expressed to the mayor and others, is committed to fulfilling its obligations as previously committed to the city as we proceed with the work. We are in the process of reevaluating the timing of both commitments, in light of our new contract and our accelerated schedule for fulfilling that work. But we are committed to fulfilling our obligations and commitments made to the city.

Mr. TURNER. That is excellent. They will be glad to hear that.

I have a second follow-up question.

Secretary ROBERSON. Thank you.

Mr. TURNER. They also have a concern because apparently the site office that is located at Miamisburg is being considered for relocating. And in discussing with them the process by which that review is occurred, I do have some concerns. It is my understanding the site office relates both to the Miamisburg Mound operations and Fernald.

Secretary ROBERSON. That is right.

Mr. TURNER. And the site office is going to be moved to a location that is not in either of those communities. Obviously, there is a financial impact to the community that you are partnering with when you move from them during a process of decontamination and transition.

But in my discussions with them, it sounds as if the Department of Energy is making a decision that is not financially in the best interest of the Department of Energy—that there were offers that were made and that the specifications of the type of office—class A, largest cubicle space more than is commercially readily available in that area—might cause the Department of Energy to needlessly spend additional funds in moving to a different community than Miamisburg.

Could you review that issue for me and get me information on it? Because, obviously, there are two aspects to it—one, when you are partnering with a community, it is best to work so that the resources are available with that community. And the second is that, as we just indicated, as you have more funds available for defense activities, the less you are spending in the contamination process. And if you are overly spending in relocating this side office, this could be money that could be saved.

Secretary ROBERSON. Mr. Turner, I would be pleased to follow up with you. I can assure you that I am intimately familiar with each step and we have carried this out in a very objective and thoughtful way. But I would be glad to follow up with you.

Mr. TURNER. Great. Thank you.

Mr. EVERETT. Ms. Wilson.

Mrs. WILSON. Thank you, Mr. Chairman.

Thank the gentlemen for being here today.

I wanted to follow up on this question of the advanced development program because I am supportive of your efforts to reinvigorate that program so that we are looking at what other countries are doing and constantly thinking and getting our best scientists minds around some of these new challenges. But I note as my colleague, Mr. Thornberry did, that you have put in your budget $21 million, of which $15 million is for the Robust Nuclear Earth Penetrator, and you are going to divide the other up among the labs, which means that kind of a $2 million effort at each of the labs.

Back when you had the advanced development program active in the 1970s and 1980s, what was your budget for it then?

Dr. BECKNER. Well, it certainly was larger than this, without going into the details. We do not see this as the steady state configuration for the activity. We are trying to get things restarted in a way that makes sense. And, quite honestly, it has been long enough since we had people working in this area that our view was we needed to spend probably most of the first year really thinking hard about what needed to be done, as opposed to spending more money, perhaps, on ideas that might be the first ones that you might think about, but perhaps would not be the most important things that you would eventually want to do.

So our view here, really, is tempered by where we have been in the past and not so much by where we think this program will be in the future. Certainly, looking to 2005 and 2006, it will have to be larger than this. How much larger, though, I think will be determined by what we work out here in the first year.

I should add, as a follow-on to the question that Mr. Spratt asked me earlier about whether we need the repeal of PLYWD (Precision Low-Yield Weapons Design) in order to conduct this program—my answer to him was specific for 2004 for just that reason—because we really are only going to be thinking about the problem, for the most part, in 2004. In later years, we will need that repeal, I believe, because of the nature of the work that is likely to come along. I cannot say that with certainty because I do not know what the answers will be, but I think it is the prudent thing for that legislation to be repealed.

Mrs. WILSON. Following up on that, then, because I did want to address that issue, as well, you do not think you will need the repeal this year, but you do believe that you are going to need it as you get the advanced development program going?

Dr. BECKNER. Well, you come back to this very difficult problem that we all know we now have to work on and that is the question of how best to attack targets that have never been analyzed previously. And certainly the early answers that are coming out of those analyses make the problem look, indeed, very difficult. And whether that would cause you to want to have a weapon with a yield under 5KT (five kilo tons), I think it is just too soon to say. But I would agree that for many of the things that people have looked at so far, the suggestion is if anything it needs to be substantially higher yield than five. But that is not to say there might not be reasons why you would like to have that yield available.

So there is a point where you really are going to run up against a boundary as long as that legislation is on the books.

Mrs. WILSON. With respect to a program that does relate to the modernization of the U.S. nuclear stockpile—the MESA (Microsystems and Engineering Sciences Applications) project at

Sandia—I noted in your budget that the amount requested was less than half the amount we were expecting to be in your budget for this year to keep the construction on schedule. I wondered if you could talk a little about that. We may need to go into some detail about that later. But I wonder if you can give us a general sense of what is going on at the MESA project. And why is this going to be delayed?

Dr. BECKNER. Yes. I think I will take for the record, the opportunity to give you the details, because they are fairly lengthy. But let me say, the project is moving along very well. It is on schedule. We are pleased that the funding profile has turned out to be a little bit more aggressive than we originally anticipated.

The request we have is one which reflects more upon our earlier plans than, perhaps, the way the project has turned out to be funded.

On the other hand, with our request, we certainly believe we can bring that facility in the operation in time to maintain all of the critical outputs that we require from it. I would have to say the sooner, the better. But we believe we can conduct the program as presently proposed.

Mrs. WILSON. One final question—laboratory-directed research and development has often been a controversial issue on the Hill, although certainly not with me, because of the innovative technologies that have come out of that program and the flexibility that it gives the laboratories for research. But I understand there was a report recently that was due to the Congress that was delayed for some reason and some people were justifiably upset by that. I wonder if you can explain why the report on lab-directed research and development was not up here on time and what was going on.

Dr. BECKNER. These reports turn out to be difficult to complete and get cleared, as you might imagine. The work is finished. And, you know, it will be delivered. And I think it will contain the information that you request. It is surprising how some topics are of particular difficulty in getting them completed and cleared. About all I can say is this is one of those reports that is hard to get out, but you will get it.

Mrs. WILSON. Thank you, Mr. Chairman.

Mr. EVERETT. Thank you.

Now my friend and our ranking member, Mr. Reyes.

STATEMENT OF HON. SILVESTRE REYES, A REPRESENTATIVE FROM TEXAS, RANKING MEMBER, STRATEGIC FORCES SUBCOMMITTEE

Mr. REYES. Thank you, Mr. Chairman.

And I apologize to the witnesses for not having been here. But I do not know if you knew or not—our hearing start-up was changed and I had a commitment.

Mr. Chairman, General Jumper sends his regards to you.

And I want to thank my colleague for filling in for me. And in the interest of not having, perhaps—repetitious answers to questions that have already been asked, I think I will just sit and listen.

Thank you, Mr. Chairman.

Mr. EVERETT. Thank you.

Ms. Tauscher.

Ms. TAUSCHER. Thank you, Mr. Chairman.

Good to see everyone.

Dr. Beckner, I am really concerned about this draft legislation that accompanies the fiscal year 2004 DOD Defense Budget—that the Pentagon asked for the repeal on the ban of research and development on low-yield just for the weapon. This ban has been a pillar of arms control efforts, in my opinion. I consider it to be completely irresponsible for us to be asking for this now, considering the fact that we are attempting to disarm other people around the world. And I think it has great potential to do harm to what little is left of this administration's credibility.

Now, nuclear policy falls under full committee consideration and I would like you to answer a question. I do have the only congressional district with two national nuclear labs in it. And it appears that there is a theory floated about that in order to justify the repeal of this ban, DOD argues that we need to do that because it is vital for the United States to train the next generation of nuclear weapons scientists and engineers. And without removing this ban, we will be unable to do that.

Do you, at the NNSA, support lifting the ban—the first question? And second is finding employment for young scientists and engineers the only reason that you would support lifting the ban? Are there other—any other reasons that you think it is a good initiative to do now?

Dr. BECKNER. Okay. First, I do support repealing the legislation and the reason for that is primarily one of it causing us to stop some analyses from occurring which are natural extension of work that you would do at higher yields, you know, to be able to study things down to 5KT and then have a sharp cut off to scientists and engineers prevents you from completing the work.

Ms. TAUSCHER. Dr. Beckner, may I interrupt you for a second? I understand that, but has the ability for us to do that research ever endangered the national security of the United States?

Dr. BECKNER. I think to date it has not, but looking to the future, I am not so sure.

Ms. TAUSCHER. But you can understand, Dr. Beckner, that there are things that people like to do and would love to do that, frankly, are not always good to do. And the difference between what you might like to do and what scientists would think would be really neat science to do is the fact that those of us that sit in these chairs and take the oath of office that we take to protect the American people have bigger context and different context to look at, including the political considerations of doing.

What do you think the ramifications would be if we repealed this ban to our credibility in the world that we are actually committed to arms control; to removing weapons systems, not increasing them; and that we are not, kind of, talking out of both sides of our mouths as we are attempting to prevent other people from securing nuclear weapons that now we have gone off on this new junket that we are not only going to go get some more, but we are also going to get some that we previously said no one should have? How does make us look?

Dr. BECKNER. Well, I think you have asked me to venture into territory that is not properly mine. It is my job to assess the threat to the country and to propose solutions, I believe. And when that encounters legislative barriers, there comes a time when I have to recommend that we try to remove those barriers.

I think it is the job of the Congress, now, to make the decision whether you are going to allow that to occur or not.

Ms. TAUSCHER. But just be clear, we have never had a situation, up until now, and when—I think what your answer was just a moment ago is that in the short term, you do not expect that this ban endangers American national security.

Dr. BECKNER. In the short term, that is my answer. For the long term, I have to say it precludes work which I think this country should conduct.

Ms. TAUSCHER. But that does not deal with the political ramifications.

Dr. BECKNER. It does not. I am dealing with it as an engineer or a scientist, which happens to be what I am.

Ms. TAUSCHER. And a good one.

Dr. BECKNER. Thank you.

Ms. TAUSCHER. Ms. Roberson, can I ask you a question about the EM issues at Lawrence Livermore National Laboratories? How are you?

Secretary ROBERSON. I am fine. How are you?

Ms. TAUSCHER. Good.

There is a significant shortfall in the 2004 baseline budget for work that we are supposed to cover the cost of generating and treating and disposing of newly generated waste at Lawrence Livermore. And how do you expect Lawrence Livermore to manage the hazardous mixed and radioactive waste in a safe and compliant manner and finally get rid of those legacy waste drums that are sitting in tents and on the outsides instead of being on the inside if they do not have the money to do it? Isn't it creating a situation where Lawrence Livermore is actually going to be in violation of the law because they do not have the money to do what they are told to do?

Secretary ROBERSON. Ms. Tauscher, I am not aware of a shortfall in the budget request for 2004 for Lawrence Livermore. As you are aware, in our previous interactions, we have actually developed a waste disposition plan that accelerates disposition of those wastes beyond where we had planned before. This may be a remnant of the proposed budget structure for 2004. And what I would like to do is to look at that and provide you details because I am fairly sure there is not a proposed budget shortfall to implement the accelerated remediation of the legacy waste.

Ms. TAUSCHER. Well, why don't you take a look at it, your increase may be my shortfall. So why don't we try to figure out how we get these numbers to mesh?

And I thank you all for being here. I think it is safe to say that these are very important issues for us to look at. They are very complex. Your context is a different context than, necessarily, we have to look at them because of our different intermingling responsibilities.

But I thank you for your service and I thank you for your hard work.

And I yield back the balance of my time.

Mr. EVERETT. The lady's time has expired. [Laughter.]

Mr. Ryan.

We will start a second round. I think in exchange for the members' cooperation holding it to five minutes, I have promised that we will be here as many rounds as we need to be. And I will start off—for Dr. Beckner.

Dr. Beckner, you seem to be getting the majority of the questions and, in my opinion, you are doing very well in answering them.

Dr. BECKNER. Just a good day. [Laughter.]

Mr. EVERETT. The first of many, I hope.

The United States has not conducted an underground nuclear test since September of 1992—instead, relies on science-based techniques to continue to certify the safety, reliability and performance of the nuclear stockpile. The lead time for the United States to conduct an underground test, should the President determine that such tests are necessary, is currently assessed at an unacceptable three years. What progress has NNSA made towards enhancing test readiness in determining an optimum test readiness posture?

Dr. BECKNER. A substantial amount of work was done last summer and the report prepared at that time, in draft form, which we have now been in the process of finalizing, which allows us now to know the cost and tradeoffs associated with shortening that time.

I believe General Gordon, last year when he testified as administrator for NNSA, made the position that he felt it was unacceptable that the time remained as long as 24 to 36 months, which is where it has been until now. And until we spend some more money on it, that is where it is going to stay.

But we do now have in our proposal to this year—in the budget request—reducing that time. And we have suggested to bring it down to 18 months. We will provide you the analysis in this report which shows the other options—six months, 12 months, 18 months, 24 months. And you can conclude whether you think our recommendation is appropriate or not.

But we have completed that work. We now have a larger budget request in front of you to begin to shorten that time. And I think we are ready to move forward with that plan.

Mr. EVERETT. Mr. Card, can you provide us with an update on the defense side—assimilation, completion—specifically, what progress has been made in terms of signing letters of intent with federal and state regulatory agencies in the development of site performance of management plans?

Secretary CARD. Sure. Let me say here——

Mr. EVERETT. I do not want to leave you out, so I am going to come back with a question here.

Secretary CARD. I do not mind being left out of the hearings, actually.

We are making great progress on our program management plans. And I am going to let Secretary Roberson give you the specifics. But, just in general, I am only aware of one or two sites where we have, in my opinion, a philosophical disagreement. The plans that have not been signed or—due to people getting together or various other issues, but we are proceeding with the community, based on those plans.

So I am actually quite encouraged about our progress. And based on my experience of getting through this transition time at Rocky Flats, we are working much faster than I imagined that we would.

I would also like—before seeing if Secretary Roberson wants to elaborate on that, though—just elaborate a bit on the answer that I gave you to your question earlier. When you look at the overall benefit to the community of this cleanup strategy, I think it is got to be perceived as, in order of magnitude, better from an environment risk perspective than the track that we were on before because we are addressing the key risks so much earlier and we are completing it so much earlier.

And I think, clearly, if there are disagreements over end state cleanup levels, that this committee and the Congress and Senate will get involved in that at that time and when you look at the amount of resources that we are saving through the acceleration to apply to that, other things for national health and safety, there is no question in my mind that the public is far better off with this than they would be under any other strategy.

Thank you.

Secretary ROBERSON. Thank you, Mr. Chairman.

We have proposed performance management plans for every one of our sites. And at two of our sites, we continue to work through the details of those with our regulators in the communities.

I would like to emphasize that these performance management plans establish a new floor for our cleanup, not a new ceiling. And so our intent is not to just change the way the program looks and then in two years to be in front of you again because we have not made improvement. Our goal is to continue to improve upon that and we do, both in reducing the cost and reducing the amount of time at our site.

I would also like to emphasize that these plans are two which will focus all of the parties. The work is still there to be done and we are making great strides in the actual physical elimination of risk at our sites. We have provided in the written testimony specific examples of that. But the key success from this program is actually what gets done on the ground. And the work is being done on the ground.

Mr. EVERETT. Thank you very much.

Mr. Thornberry.

Mr. THORNBERRY. Dr. Beckner, you have been asked to venture into some policy issues. It is my hope that we will ultimately decide to remove any blinders on what we allow those brilliant people at Livermore and Sandia and elsewhere to think about. It does not seem to me to be productive that we would say, “Yes, you can explore this option, but once you get to this point, you must stop immediately. You cannot think about it. And you cannot consider it even if the security of the United States would be improved.” I do not see how that is helpful for us.

At some point, they need to bring us options and we want to encourage that. And I want to get to a point that Ms. Tauscher just eluded to, but to get an update on it because you have not been asked about the different—where we are with getting and keeping top-quality scientists and engineers and other skilled folks at labs and plants.

I think it has been encouraging to all of us that since September 11, particularly, there has been more interest of people to help contribute to our national security. And whether it is homeland security or nuclear deterrence, we want to encourage that. We want to unleash people's minds to explore options to make us safer. We will never be able to prove that if we restrict what they can think about, we got this many fewer people. But it seems to me to be something we all ought to strive for.

But in the interim, where are we as far as recruitment, retention at the complex?

Dr. BECKNER. I think the results are really quite good. And you are right—the interest in national defense work has gone up on the part of graduating college—both graduate and undergraduate students since September 11. I heard recently from one of the lab directors that their acceptance rate for new hires was well above 75 percent, in fact, I think it was nearly 90 percent.

So I think we are hiring people where we, you know, where we can, due to the budget that we are working with and with great success. But one area where we continue to have difficulty, in fact, is in the security force. Now, this is a different part of our work population, but a very important one.

And quite honestly, we continue to run behind there. And it is one of these things where the faster we run, it seems at least, we are not catching up very fast because we continue to lose people from that work force into other areas. Because, as I am sure you are aware, the——

Mr. THORNBERRY. High demand.

Dr. BECKNER [continuing]. Civilian requirements for security forces has gone up, as well.

So we—particularly in the area that I am aware is the one involving the workers that are the backbone of our transportation element. And we continue to have training classes—either two or three a year. And within a year's time, typically, we have lost about a half of those people. But, you know, our only alternative is just keep hiring.

Mr. THORNBERRY. Yes.

Let me ask about one other area while I have time. Report after report, before the creation of the NNSA, talked about the concern of not having long-range planning. You referred earlier—now we have a five-year budget. It was required in the law. That is a step in the right direction.

Do you have or do you hope to have, at some point, a long-range plan to deal with personnel issues—the number of people who are of a certain age that are expected to retire and how we are going to deal with that loss, not only of people, but of knowledge? Is there a long-range plan? Or will you have one to deal with that?

And will we have a long-range plan on facilities—not just patching up the roofs, but thinking if it is so hard to get something that is underground, maybe we ought to, at some point, have some of our things underground?

Without getting into specifics over each of them, are we having this five to 10-year plan complex wide on personnel and facility issues?

Dr. BECKNER. Yes—the answer is yes. Specifically, we are in the process of completing a 10-year plan at each site we are requiring a 10-year plan from each site so that we can integrate it together. That becomes our 10-year plan for facilities.

We are well along——

Mr. THORNBERRY. When will that be integrated?

Dr. BECKNER. Well, I do not know that I have a specific date for completion, because it will be an ongoing thing that we will update year to year. We have input on that already. So we are working with that now, as we provide this five-year funding profile to the OMB (Office of Management and Budget) and then to Congress. So that is feeding our present five-year plan that you see in the documents that we have given to you. I think we are in pretty good shape on our plans, to be perfectly honest.

Now, let's talk about people. In the case of people, I think the labs and the plants probably are in a position to do a better job and are doing a better job than we are with the federal work force. The constraints on us with the federal work force are really rather substantial.

They are aggravated by the fact that we have restructured NNSA so that we can operate with fewer federal employees. And we have got to go through this agony—I think that is the right word for it—of getting down to the level of—for our operational purposes before we can then begin to deal with the future.

So a year from now, I think I can give you a better answer on that than I can today. But that is a problem that is difficult.

Mr. EVERETT. Mr. Franks.

Mr. FRANKS. No more questions, sir.

Mr. EVERETT. No more questions.

Mr. Spratt.

Mr. SPRATT. No questions.

Mr. EVERETT. No other questions.

Mr. Meek.

Mr. MEEK. No questions.

Mr. Turner.

Mr. TURNER. No questions.

Mr. EVERETT. No questions.

Ms. Wilson.

Mrs. WILSON. Thank you, Mr. Chairman.

I just had two things that I did want to follow up on. And I do not have two labs in my district.

And Los Alamos is not even in my district, Mr. Spratt, so I guess I can say anything I want to the Santa Fe papers when they——

Mrs. WILSON [continuing]. Be that as it may, I do think that this whole issue of what we allow people to think about and what restrictions we put on research—the only security that it undermines is our own. And I think it is an illusion to think that we will be safer if we do not let people think about and explore things that we may find frightening because they will never be able to come to us with options. And that is what we want you to do.

So it may not be necessary this year because you are getting this—you have got the tinder that you are trying to spark for a renewed advanced development program. But I think we are going to have to make some hard decisions. And I think they are important decisions for the security of this country. And I wanted to thank you for being willing to come forward and discuss those, at least in a preliminary way this morning.

One thing that I did want to ask you about, finally, had to do with this streamline management and the restructuring that you are going through and whether you see, with respect to oversight of our labs and weapons complex, any risks of this—whether they are in the transition or in the end state—of changing to this new structure and how you have mitigated those risks.

Dr. BECKNER. Well, when we say that we are going to reduce the total number of federal employees by 25 percent, I think obvious concerns follow as to whether that might cause us to not have as much oversight of the activities as might be advised. So that is a question that we are worried about. We believe we can do it because of the way we have reorganized—putting more authority at the site offices where they are immediately adjacent to the contractor activities.

And so far, I would say every indication is that that is right. You know, I have no higher level of concern today than I did, for instance, six months ago when we were operating in the old way. In fact, I think I have a little less because I do think we have a good relationship developing between the site offices and the contractor management teams.

The secret is there, though, and it is in the fact that the intent here is to be sure that the contractors realize that we are depending on them, first and foremost, to do the job that they are under contract to do. And we are going to oversee that contract so that they do what they are under contract to do because we cannot manage those sites. Those contractors have to manage the sites. And I think we have good contractors. And for that reason, I believe we have got the right plan in place.

But you are right, we are reducing the number of feds—or federal employees and we would better keep an eye on it.

Mrs. WILSON. Thank you, Mr. Chairman.

Mr. EVERETT. Certainly.

Mr. Reyes.

Mr. REYES. Thank you, Mr. Chairman.

Dr. Beckner, I heard you talk about that—the report on test readiness is completed. Do you know when we are going to be able to get a copy of that—when it is going to be delivered?

Dr. BECKNER. I had—before you got here, I was asked that question and I had to say that I was not quite prepared to give you a firm date. But the draft report has been completed for some time. We have been getting it in final and—form so that we could get it out. And I am going to have to take it for the record to give you a firm date.

Mr. REYES. Okay. Thank you.

The other question that I have is in light of the questions on being able to hire and retain security personnel, what is the state of effectiveness of the secure transport activity? And in the budget I note that there is a slight increase in that——

Dr. BECKNER. Yes.

Mr. REYES [continuing]. In that area. And I was wondering is that commensurate with the task? Is that not enough? Or what is your take?

Dr. BECKNER. The way we are handling it now is we have those personnel working a lot of overtime—more than we feel we would like to sustain. They do like to work some, you know, they are—these people just live that life, you know? They are perfectly happy working 50 hours a week instead of 40, for instance. But when you get much beyond 60 hours a week, it does become a situation where you feel like you have gone too far. So we are trying to hire more people so that we can work some less overtime.

The other thing you observe is we are trying to build up the total number of employees—part of that so we work less overtime and also part so that we can have a little more time for training. We have a situation now where we run about 15 to 20 percent of time is in training. We would like that to be more like 20 to 25 percent for these forces, because these are the people who carry guns and are authorized to use them.

So we are trying to increase the work force and that is what most of that money there is for. At the same time, we do continuously have to upgrade the transportation fleet in sort of a normal way.

Mr. REYES. Has this work force been affected much like others around the country in terms of the mobilization of the Reserves because we have noticed a definite impact on police departments—on sheriff's departments. And——

Dr. BECKNER. I asked that question just a week ago of Steve Affner, the fellow who is responsible for this. And, as yet, I think the number was fewer than a half dozen that we have had called up. But we have lost a few.

Mr. REYES. Thank you, Mr. Chairman.

Mr. EVERETT. Ms. Tauscher.

Ms. TAUSCHER. Thank you, Mr. Chairman.

I want to get back to this issue of the five kiloton limit because, you know, with all due respect to my colleague from New Mexico, I do not think it is as benign as it has been portrayed that this is just about letting people think and letting scientists, kind of, do their thing, because if you read the draft of the defense authorization bill submitted by DOD, it says that the reason why we need to look at repealing this is because this legislation negatively affects or affected U.S. government efforts to support the national strategy to counter WMD and uncuts efforts that would strengthen our ability to deter or respond to new emerging threats.

That sounds pretty strong. Actually, it sounds as if this stops us from protecting our country. And I do not think that is exactly true. I think that that is a ideological position. And a political position, perhaps, but not a fact-based position.

And I just want to reiterate for the record, Dr. Beckner, you have just told me that the lack of the ability to do research on low yield—below five kiloton weapons has not damaged the security of this country as of yet and you do not think so in the short term.

Dr. BECKNER. The problem is the enemy fortifications, if we want to describe them that way, we now realize are changing with time. And as we get more information, we realize the difficulty of dealing with those targets. And that is what I believe is causing the DOD to give you the language that they have given you.

We know that we have to understand much better in the future how you destroy chemical and biological agents, as opposed to disbursing them, which Mr. Spratt eluded to earlier, because we all agree that is a bad idea.

Ms. TAUSCHER. Yes.

Dr. BECKNER. As we study that problem, and this is probably a discussion that we could have more fully if we were in a classified setting. And I would volunteer—to the extent that I have that information—to provide it in that setting. But as we study the problem more fully, we realize how difficult it really is, particularly to kill biological agents. It takes either very high temperature for some period of time or a lot of ionizing radiation for some period of time or a combination of the two. And there—we know there is a tradeoff. And we have now studied—"we" I say in the community—the scientific community, broadly, not just the NNSA labs, there are other labs involved in this.

It is now been studied enough to know that it is quite challenging to first of all model the likely configuration that you would be attacking and to then convince yourself that you can get an extremely high kill level for those viruses or bacteria, as the case may be. And unless you can, then what are you going to do?

So you are driven to work that problem until you can put in front of the president or in front of the Secretary of Defense, as the case may be, a solution, if you can possibly find a solution. Otherwise, you are left with the problem and you just say, "I cannot do anything about that." And I do not think that is acceptable. That is the problem.

Ms. TAUSCHER. But it still could be that there are other reasons small yield nuclear device could not be used because proximity to populations, collateral damage, the inability to actually go in and assess what exactly the damage was——

Dr. BECKNER. Yes.

Ms. TAUSCHER [continuing]. And whether you actually——

Dr. BECKNER. Yes.

Ms. TAUSCHER [continuing]. Had done what you thought you——

Dr. BECKNER. Yes.

Ms. TAUSCHER. —were going to do.

Dr. BECKNER. Yes.

Ms. TAUSCHER. And then there are, obviously, the proliferating challenges of actually disbursing——

Dr. BECKNER. Yes.

Ms. TAUSCHER [continuing]. The bad stuff as opposed to containing it.

Dr. BECKNER. Yes.

Ms. TAUSCHER. I am—I just—as I have said, I am deeply concerned about the—what I appear to—what I think is an ideology in search of a justification. And, you know, I am all for people just thinking and thinking big. And I am all for protecting national security. But since we do not appear to have an agreement that there is a threat to national security right now and that this is about potentially having an issue, I think we should be very serious about thinking about whether we remove this ban now.

Dr. BECKNER. I understand. Let me suggest one other line of thinking, since—and that is any weapon that would subsequently be developed, obviously, has to come back to the Congress for authorization. So thinking about these things and devising proposed solutions seems to me to make sense. And then bring it back and let the Congress act on it at that time. But to cut it off and tell us, "Do not ever do that," is not something that I like to recommend.

Ms. TAUSCHER. Thank you.

Thank you, Mr. Chairman.

Mr. EVERETT. Thank you Ms. Tauscher. Go ahead Mr. Spratt.

Mr. SPRATT. Did you say that you have information that 5KT may be insufficient then—that a larger weapon may be needed for this mission?

Dr. BECKNER. I do not have that much certainty about the answers because I do not have that much certainty about the targets yet. But as we have begun to see some of these analyses, you quickly conclude that this is a very tough job. And I think beyond that we ought to get ourselves into a classified setting for the discussion.

Mr. THORNBERRY. Mr. Chairman, I would just request that at some appropriate time we could have that classified briefing on this subject. I think——

Mr. EVERETT. I think that would be very helpful.

Mr. THORNBERRY [continuing]. That would be very supportive and helpful to us.

Mr. EVERETT. Yes. We will have staff get in touch with you and try to make arrangements for that.

Dr. BECKNER. I would say we should plan to bring DOD into this request——

Mr. EVERETT. We would request you bring whoever you think is necessary.

Dr. BECKNER [continuing]. Because much of what I have talked about is, in fact, not entirely NNSA work.

Mr. EVERETT. Fine.

First of all, I want to thank the panel and the members for cooperating on the five-minute rule as I had promised we would have as many rounds as was needed.

And I also want to thank all of you for taking time to be with us today. Your statements and comments will be very helpful as we consider the administration's budget request.

I also might add that I know that there are questions going to be submitted for the record and I would ask for your response to those in 30 days.

This hearing is adjourned.

[Whereupon, at 10:38 a.m., the subcommittee was adjourned.]

APPENDIX

March 6, 2003

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

March 6, 2003

Opening Statement

The Honorable Terry Everett

Chairman, Strategic Forces Subcommittee

Hearing on the Department of Energy's Fiscal Year 2004 Budget Request for Atomic Energy Defense Activities

March 6, 2003

The hearing will come to order.

The Strategic Forces Subcommittee meets today to receive testimony on the Department of Energy's fiscal year 2004 budget request for Atomic Energy Defense Activities.

I welcome Under Secretary Card, who I believe is testifying before the Armed Services Committee for the first time, and Assistant Secretary Roberson. Under Secretary Card will provide testimony on the Department of Energy's request for defense environmental management – though perhaps that's a poor choice of words as I understand that the Department's focus is not site management, but rather cleanup and closure.

I also want to welcome Dr. Beckner from the National Nuclear Security Administration. Dr. Beckner is the Deputy Administrator for Defense Programs. Weapons Activities compose over 70 percent of the 8.8 billion dollar request for NNSA, and I am confident that if members have questions that fall outside Dr. Beckner's expertise, he will get answers for us.

We have a lot of ground to cover today, and I want to allow each of our members as great an opportunity as possible to ask questions, so I will be brief. Likewise, I would ask our witnesses to please be brief with their prepared remarks – the entirety of your written testimony will be entered into the record.

Under Secretary Card has the monumental and unenviable task of cleaning up a Cold War legacy of 114 contaminated sites resulting from more than half a century of R&D, production, and testing of nuclear weapons. The magnitude of the problem is apparent when one considers that 40 percent of the funds requested for atomic energy defense activities – 6.8 billion dollars – support this undertaking. At a time when our armed forces are engaged all over the world, it is more important than ever to ensure the prudent use of defense dollars.

As recently as the beginning of last year, the life cycle cost estimate for cleanup of legacy sites stood at 220 billion dollars, …with work at some of our most contaminated sites not reaching completion until 2070. In fiscal year 2003, the Department embarked on an aggressive reform effort to refocus emphasis from risk management to real risk reduction. The current plan calls for completion of all remediation efforts by 2035, at a cost savings of more than 50 billion dollars.

Now the record is replete with attempts to reform our environmental remediation programs. But in this case those efforts are being led by the architects of the real success story at Rocky Flats – Under Secretary Card and Assistant Secretary Roberson. Rocky Flats is now on schedule for completion in 2006, 50 years ahead of schedule and 30 billion dollars below the original baseline. So I am cautiously optimistic, and look forward to hearing of your progress across the complex.

Dr. Beckner, I know you have challenges too – putting our defense nuclear complex back in order, …especially our production facilities…, and continuing to support certification of the nuclear stockpile without testing. We can expect nuclear weapons to remain a cornerstone of our national security posture for many years to come.

Our science-based approach to stewardship is proving a difficult technical challenge. I understand we are making progress, but uncertainty grows with the time elapsed since our last tests. As the number and variety of weapons in the stockpile come down through retirements, it is more important than ever to maintain confidence in those weapons remaining. Frankly, we are in a race against time with our science-based stewardship program – a race with an outcome that is far from certain at this point – so I look forward to your assessment of where we are today, and where we are headed in the future.

Let me now recognize my friend, Mr. Spratt, who is standing in for the subcommittee's ranking member, Mr. Reyes, for any remarks he may wish to make. Mr. Spratt?

Thank you all for taking the time to be with us today. Your statements and comments will be very helpful as we consider the Administration's budget request.

With that, the hearing stands adjourned.

Statement of The Honorable Robert G. Card
Under Secretary
and
Jessie H. Roberson
Assistant Secretary for Environmental Management
U. S. Department of Energy
before the
Subcommittee on Strategic Forces
Committee on Armed Services
U.S. House of Representatives
March 6, 2003

Note:
This testimony is being submitted by Robert G. Card and Jessie H. Roberson. However, in accordance with applicable ethics rules and regulations and the recusal policy of the Senate Committee on Energy and Natural Resources, Under Secretary Card is recused from some matters covered by this testimony. He did not participate in the drafting or review of those areas of the testimony. Those portions of this testimony are being submitted only by Assistant Secretary Roberson. Those areas include matters dealing with Rocky Flats, Mound, and Hanford Tank Waste. Under Secretary Card is only available to discuss those matters from which he is not recused.

Mr. Chairman and Members of the Subcommittee, we are pleased to be here today to discuss the refocused Department of Energy's Environmental Management (EM) program, our progress in implementing cleanup reform, and the importance of sustaining the momentum for the benefit of the many generations to come. We appreciate this opportunity to share with you our actions of this past year and the opportunities that lie before us.

In 1996 this Committee took a bold step that fundamentally altered the course of the cleanup program in the Department of Energy when it supported the accelerated closure of Rocky Flats. This was at a time when there was little reason and no demonstrated track record to believe that the Department could deliver on a challenge of this magnitude. This Committee took further steps in 1999 when it created the Defense Facilities Closure Projects account and challenged the Department of Energy to close three of its nuclear sites by 2006. While it has taken significant effort and dedication, today all three of those sites, Rocky Flats, Mound, and Fernald will close on or ahead of schedule. The vision and support that this Committee provided planted the seeds of success in the cleanup program and we have already begun harvesting those fruits.

Nonetheless, success at other sites in the Environmental Management program remained elusive. Year after year, it continued to take longer and cost more to complete the cleanup and we slowly devolved into a program that promised little and delivered even less. By the end of fiscal year 2001, the environmental cleanup program stood as one of the largest liabilities of the Federal government.

Last year, as ordered by Secretary Abraham, the Department completed a Top-to-Bottom Review of its cleanup program and concluded that significant change was required in how the Department attacked risk reduction and cleanup for the rest of its sites. Two years ago, as costs continued to increase, we estimated that it could take over $300 billion and nearly 70 more years to complete cleanup – 20 years longer than the actual operations of our oldest facilities and 25 times longer than the actual construction of our most complex facilities. We concluded, much as you did 6 years earlier, that a fundamental change to how we approached, managed, and performed the entire cleanup program was required. Last year we started the effort to reform this massive program and while our most daunting challenges still lay in front of us, we are now focused, moving in the right direction. The accelerated cleanup program has started to build momentum.

Today the Environmental Management program is still very much a defense liability, responsible for many tons of special nuclear material in the form of plutonium and enriched uranium, which would make it one of the one of the world's largest nuclear super-powers. In addition, the EM program is responsible for safely disposing of 88 million gallons of radioactive liquid waste, 2,500 metric tons of spent nuclear fuel, 135,000 cubic meters of transuranic waste, and well over 1 million cubic meters of low level waste. We ask the Committee to stay with us as we continue our quest to eliminate risks posed by these materials at a pace few of us could have ever imagined.

Since completing Secretary Abraham's Review, the estimated cost to complete the cleanup program has decreased by over $30 billion and the time to complete has been shortened by 35 years. This means that the risks to our workers, our communities, and the environment would be eliminated a generation earlier than the previous plan. But we are not satisfied and neither should you. Our goal is to accelerate risk reduction and cleanup and shorten this program even further while decreasing costs by more than $50 billion.

In fiscal year 2004, President Bush is requesting a record $7.24 billion for the accelerated cleanup program. The Administration's record funding request supports the great progress we made last year with our regulators and communities. The Administration believes that this investment, which we expect to peak in fiscal year 2005, is crucial to the success of accelerated risk reduction and cleanup completion. We anticipate funding will then decline significantly to about $5 billion in 2008.

The EM portion of the fiscal year 2004 Congressional budget contains some creative and innovative changes that we greatly need to support our accelerated risk reduction and closure initiative. The first of these is a new budget structure and project baseline summary structure that is focused on completion, accountability, and visibility; institutionalizes our values; and integrates performance and budget. Requested funding can clearly be associated with direct cleanup activities versus other indirect EM activities. Second, where appropriate, we have limited the inclusion of line-item construction projects as activities for separate authorization and funding controls to facilitate timely and sensible tradeoff decisions that otherwise may not be possible. We solicit your support for this flexibility as we implement our accelerated cleanup strategies, with the understanding that improving project management remains a significant challenge for the Department. Third, this budget reflects the transfer of multiple activities to other Department elements that are not core to the accelerated cleanup mission. They include such things as the transfer of INEEL landlord responsibilities to the Office of Nuclear Energy, Science and Technology, transfer of the long-term stewardship program to the new Office of Legacy Management and several others.

The Administration considers this program vitally important from a health, safety, and environmental protection perspective. We stand at an important crossroads in the cleanup program today -- success is clearly within our reach, but so is failure. We believe the cleanup of the former nuclear weapons complex is far too important a matter to be left to chance. With your past help, we laid a solid foundation that is already showing signs of early success. Moving forward, we need your continued support to achieve success.

A YEAR OF TRANSFORMATION

Last year at this time, the Top-to-Bottom Review had been recently released, citing recommendations to quickly improve performance. We wish to take a moment to recap the recommendations and bring you up to date on our progress in remedying these weaknesses.

Improve DOE's Acquisition Strategy and Contract Management. A key conclusion of the Top-to-Bottom Review was EM's contracting approach was not focused on accelerating risk reduction and applying innovative cleanup approaches. Processes for contract acquisition, establishment of performance goals, funding allocation, and government oversight were managed as separate, informally related activities rather than as an integrated corporate business process. Contracting strategies and practices made poor use of performance-based contracts to carry out EM's cleanup mission. The Top-to-Bottom Review Team recommended that all current performance-based contracting activities be reviewed and, where necessary, restructured to provide for focused, streamlined, and unambiguous pursuit of risk reduction.

Move EM to an Accelerated, Risk-Based Cleanup Strategy. EM's cleanup strategy was not based on comprehensive, coherent, technically supported risk prioritization--another important observation cited by the Review team. The program was implementing waste management practices and disposition strategies costing millions and not providing a proportional reduction in risk to human health and the environment. Cleanup work was not prioritized to achieve the greatest risk reduction at an accelerated rate. Interpretation of DOE Orders and requirements, environmental laws, regulations, and agreements had created obstacles to achieving real cleanup neither benefiting human health nor the environment. Resources were diverted to lower-risk activities. Process, not risk reduction, had become the driving force. The Review recommended that DOE initiate an effort to review DOE Orders and requirements as well as regulatory agreements, and commence discussions with states and other regulators with the goal of accelerating risk reduction.

Align DOE's Internal Processes to Support an Accelerated, Risk-Based Cleanup Approach. The Review found DOE's own internal processes inconsistent with a risk-based cleanup approach. The hazards at the DOE sites and the liability associated with them did not appear to dictate the need for urgency in the cleanup decisions. The Review team emphasized that the EM mission cannot be accomplished by continuing business as usual. Immediate actions in all elements of the EM program would need to be taken to transform DOE's processes and operations to reflect the new accelerated risk-based cleanup paradigm.

Realign the EM program so its scope is consistent with an accelerated, risk-based cleanup and closure mission. The Review team underscored the necessity that EM should redirect, streamline, or cease activities not appropriate for accelerated cleanup and closure. A laser-like focus on the core mission was needed to realize the cleanup of the Cold War legacy in our lifetime. Though many of these non-core activities may be worthy of DOE or federal government support, a reassessment of the relevance of non-related or supporting missions was warranted to focus the program. The financial and administrative resources required for EM implementation and oversight of these activities represent a major commitment for EM.

In response to the Review's recommendations we have:

Developed and are implementing a new acquisition strategy. In the area of acquisition strategy and contract management, we have not been idle. We are aggressively using and managing the acquisition process as one tool to drive contract performance. We are evaluating both the performance and design of every contract in this program and as opportunities become clear we are making corrective action. One example of our progress is the December 2002 award of a new contract for the cleanup and closure of the Mound site. The whole process from time of the issuance of the Request for Proposals (RFP) to the awarding of the contract, which required changes in DOE's internal business practices, was accomplished in just 6 months. Another example is at Oak Ridge where we are transforming the cleanup contract into a closure contract with a one year demonstration period to further our overall cleanup goals. Changing this contract arrangement will accelerate cleanup work by 5 years and save $1 billion over the life of the program at the site.

But that is just the tip of the iceberg. We envision a broader overhaul of EM's entire acquisition process, including our methodology for formulating acquisition strategy, developing RFPs, identifying performance-based incentives, and providing oversight of contractor performance. We are pursuing a path to both increase competition by enlarging the pool of potential contractors competing for our work and increase the accountability of our contractors to deliver real, meaningful cleanup. Our acquisition strategy focuses on five areas. First, we are "unbundling" work into smaller packages where it makes sense. Second, we are driving innovation and improved cost performance through the use of small and smaller businesses, complementing the unbundling strategy. Third, we are actively promoting innovation in our cleanup work through the competitive process where improved performance is required. Fourth, we are extending or modifying contracts where excellent performance has been clearly demonstrated. Fifth, we are modifying and changing our acquisition processes to support these strategies in order to allow them to be successfully implemented.

To complement these steps, we have launched a Contract Management Review Board to review our contracts from a more corporate perspective. Our goal is to insure that the lessons learned both good and bad, from all our endeavors are institutionalized into our contracts and business practices and that we suspend those contract philosophies that do not support accelerated risk reduction and cleanup of our sites.

Established 10 special project teams to carve new innovative paths for accelerated clean up and risk reduction. The Top-to-Bottom Review identified unfocused and inconsistent work planning processes as the principal contributors to EM's uncontrolled cost and schedule growth. To address this failing, we formed ten special corporate projects, each assigned a specific strategic objective. Each team is formulating corporate level initiatives to accelerate risk reduction in a much improved, more cost-effective manner. Objectives include contracting, high-level waste and consolidation of Special Nuclear Material. Each of the special projects has a dedicated project manager, supported by an integrated project team to identify, plan and execute needed changes in the EM program. These project teams, using project management principles, are key to correcting our work planning processes and instilling rigor back into our internal management decisions.

Meaningful, lasting reform must be the result of leadership and commitment but it must find its way into the very core of the organization to be sustained. Building a high-performing culture requires attracting and retaining talented people who deliver excellence in performance. Improving management efficiencies requires that organizations challenge, hold accountable, and reward top-performing employees. This corporate initiative does just that. These ten teams will herald in a new standard of performance, innovation, and greater results for the EM program. Our goal is not just to establish performance-based contracts but to solidify a performance-based program for all who choose to have a role.

Implemented a strict configuration management system. Another reform we have implemented is a strict configuration management system that baselines a number of key, critical program elements. Examples of some of the key elements include the Performance Management Plans, EM corporate performance metrics, contract performance measures/incentives and life-cycle costs. Strict change control and monitoring of these key elements will facilitate a high confidence level that the goals and direction of the accelerated cleanup initiative are being met.

In October 2002, EM established several new corporate performance measures for the program. EM will continue to track corporate measures such as the number of geographic sites completed, the amount of transuranic waste disposed, and the number of plutonium metal/oxides packaged. However, new corporate measures such as the volume of liquid waste in inventory eliminated, number of liquid waste tanks closed, number of enriched uranium containers packaged, and amount of depleted and other uranium packaged are a key part to the successful execution of EM's accelerated cleanup strategies. In addition, EM is establishing site resource-loaded baselines that will enable the program to comprehensively track progress against its accelerated risk reduction, cost, and schedule objectives. Through the establishment of these new performance measures and a rigorous configuration management system, which have developed clear lines of accountability for what is expected to be accomplished, EM will be able to make crucial corporate decisions that will keep the program on track, controlling cost increases and minimizing schedule growth.

Identified work activities that directly support accelerated cleanup from those that do not.

A key finding of the Top to Bottom Review was that EM was supporting and managing several types of activities that may not be appropriate for an accelerated risk-reduction and cleanup program. In that light, we took a hard look at those activities and, while they may be of importance to the Department and the federal government, they may not be the best aligned in the EM program. Based on that assessment, for FY 2004, the following identified program elements were not included in the EM budget but, because of their importance to the Department, have been transferred to other DOE organizations with which they are more appropriately aligned. They represent activities that are not part of the core accelerated risk reduction and closure mission.

- Environmental Management staff at the National Energy Technology Laboratory transferred to the new Office of Legacy Management.
- The Analytical Services Program transferred to the Office of Environment, Safety and Health.
- The Radiological and Environmental Sciences Laboratory transferred to the Office of Environment, Safety and Health.
- Pre-existing liabilities and long-term contractor liabilities transferred to the Office of Legacy Management.
- The Long-term Stewardship Program transferred to the Office of Legacy Management.

In addition, landlord responsibilities for the Idaho National Engineering and Environmental Laboratory were transferred to the Office of Nuclear Energy, Science and Technology to reflect the site's major mission realignment.

Revitalized our human capital strategy. Another key management reform is the human capital revitalization that strongly supports the President's Management Agenda. This reform focuses on building a high-performing culture that will attract and retain talented managers and staff that will deliver sustained performance excellence. We have built a more robust performance accountability system that holds each manager and employee accountable for actions and results and rewards them accordingly. Individual performance management is being fully integrated into EM organizational goals; executives are being held accountable for achieving strategic program objectives, fostering innovation, and supporting continuous improvement.

We are implementing an executive mentoring program with our senior executives with the objective of having a cadre of executives who are well-rounded and are prepared to effectively lead irrespective of the position to which they might accrue. We are becoming a flatter and more effective organization with a goal to have an organization structure that is clearly aligned to deliver on our accelerated risk reduction and closure initiative.

Aligned tangible, consequential results to resources with this budget request structure. With all these changes and advancements, the budget request before you is one of our most crucial. This budget request structure is the foundation for budget planning and execution of the accelerated risk reduction and closure initiative. This new structure clearly identifies scope and resources that directly support the core accelerated cleanup and risk reduction mission from those that do not. The new structure consolidates risk reduction and completion activities into only two appropriations (one defense and one non-defense) in addition to the existing Uranium Enrichment Decontamination and Decommissioning Fund. This structure removes barriers to facilitate better resource utilization and segments accelerated completion into three distinct accounts to highlight accountability.

In addition, implementation of this new structure will complement other management reform initiatives by focusing on completion or endpoint, clearly delineating how resources will be utilized (i.e., for direct cleanup activities or for other activities in the program that only indirectly relate to on-the-ground cleanup activities), and communicating the goals and objectives that we value. Lastly but not any less important, this new structure will support integration of performance and budget for the EM program.

THE FY 2004 BUDGET REQUEST

The FY 2003 budget was a transitional budget, where management reforms were developed and significant efforts were put forth to improve performance, accelerate cleanup, and reduce risk. The strategic groundwork has been laid, and the EM program is moving forward with its risk reduction and cleanup strategies. The investment we have requested in our FY 2004 budget will keep EM's new accelerated risk reduction and cleanup strategies on track.

The EM FY 2004 budget request has been tailored to meeting our mission of accelerated risk reduction and completion. This budget fully reflects each site's new accelerated risk reduction and cleanup strategies. The FY 2004 budget request is a major step toward aligning performance with the resources needed to expedite risk reduction and cleanup.

The 2004 budget request for EM activities totals $7.24 billion to accelerate risk reduction and closure. The request includes five appropriations, three which fund on-the-ground, core mission work, and two which serve as support. The five appropriations and associated requested funding are:

- Defense Site Acceleration Completion ($ 5.8 billion)
- Defense Environmental Services ($ 995 million)
- Non-Defense Site Acceleration ($ 171 million)
- Non-Defense Environmental Services ($ 292 million)
- Uranium Enrichment Decontamination and Decommissioning Fund ($ 418 million)

Through the implementation of accelerated cleanup strategies, the EM program anticipates that cleanup will be completed at least 35 years earlier than originally anticipated (by 2035) with the potential of life-cycle savings of greater than $50 billion.

In building the request, the Department applied the following principles and priorities:

Protect workers, public, and the environment: The budget request continues to place the highest priority on protecting workers, the public, and the environment. The implementation of new cleanup strategies will allow for an overall improvement in safety and reduction in risk because cleanup will be completed sooner, reducing the extent to which workers, the public, and the environment have the potential to be exposed.

Ensure the appropriate levels of safeguards and security: Due to heightened security levels throughout the nation, it is crucial that we maintain vigilance in our domestic security to protect our citizens. The EM program is responsible for many tons of surplus nuclear material. The budget request provides funding at approximately $39 million above the FY 2003 appropriation, reflecting increased safeguards and security needs. In particular, the sites with the largest funding needs are Savannah River and Hanford. Savannah River's increase in funding supports protective force staffing for the HB Line Category 1 Process and Plutonium stabilization activities, perimeter improvements, maintenance on security systems, vulnerability assessments, and Capital and General Plant Project upgrades. Hanford's increase in funding supports updates to the Critical Facility Vulnerability Assessment, additional employees for Waste Treatment and Immobilization Plant construction, security clearance processing, drug testing, and accelerated movement of special nuclear material to Savannah River and/or the Grout Facility.

Reduce risk methodically: Accelerated risk reduction requires a pragmatic approach to cleanup based on real risk reduction. Risk reduction occurs in various stages, which involve the elimination, prevention, or mitigation of risk. Because safe disposal of many materials will take a number of years to complete, our major focus of risk reduction is stabilization of high-risk materials.

The following categories of materials are considered to pose the highest risk:

- High-curie, long-lived isotope liquid waste
- Special nuclear materials
- Liquid transuranic (TRU) waste in tanks
- Sodium bearing liquid waste in high-level waste tanks
- Defective spent nuclear fuel in water basins
- Spent nuclear fuel in leaky or poor water chemistry basins
- High TRU waste content (greater than 100 nanocuries/gram)
- TRU waste stored on the surface
- Remote-handled (RH) TRU waste
- Decontamination & Decommissioning of highly contaminated facilities

Although all of these items are to be considered when setting priorities, their relative ranking may vary from site to site. For example, the following sites have planned activities/milestones for FY 2004 that correspond to their site specific risk categories.

Hanford
- Close 6 single-shell tanks; the first tanks closed at the site.
- Complete interim stabilization of Hanford single-shell tanks, which completes removing all pumpable liquids from single-shell tanks.
- Complete 30 percent of the Hanford Waste Treatment and Immobilization Plant.
- Complete stabilization of plutonium metals, oxides, and residues.
- Complete removal of all spent fuel from the K Basins and place in dry storage in the Canister Storage Building.

Idaho
- Complete the transfer of spent nuclear fuel in the Power Burst Facility canal from wet storage to dry storage at the Idaho Nuclear Technology and Engineering Center.
- Ship off-site a total of 1,819 kg total uranium (leaving a remainder of 825 kg).
- Begin the transfer of EBR-II spent nuclear fuel from Chemical Processing Plant to the Argonne National Laboratory-West for treatment and disposition as an interim step to removing all EM spent nuclear fuel from wet storage.
- Support treatment of sodium-bearing waste: complete conceptual design activities for the sodium bearing waste treatment project, initiate preliminary design on primary technology, and complete Sodium Bearing Waste, Treatment Facility Critical Decision 1 documentation; and complete characterization of remaining liquids and solids in the 11 underground tanks.

Rocky Flats
- Remove and ship remaining plutonium metals, oxides, and residue.
- Begin stabilization and hazard removal in two TRU waste buildings

Savannah River
- Permanently close tanks 18 and 19, completing the closure of the first tank grouping.
- De-inventory spent nuclear fuel from receiving basin for off-site fuels.
- Complete treatment of the aqueous portion of the plutonium-uranium extraction (PUREX) waste at the Saltstone Facility.
- Produce 250 canisters of vitrified high-level waste.

Accelerate cleanup results: To accelerate cleanup, 18 sites have developed PMPs, which identify strategies, key milestones, and commitments that facilitate accelerated cleanup and site closure. These PMPs were developed in collaboration with our state and federal regulators.

For FY 2004, several examples of sites' milestones for accelerated cleanup are:

Brookhaven National Laboratory
- Submit Brookhaven Graphite Research Reactor Draft Record of Decision to our regulators to determine the final end-state for Brookhaven Graphite Research Reactor.
- Complete construction of the Airport/Long Island Power Authority Groundwater Treatment System.

Hanford
- Complete cocooning of the H Reactor.
- Complete excavation/removal of 100 B/C Process Effluent Pipeline.
- Dispose of 500,000 tons of remediation waste from waste sites and burial remediations in the Environmental Restoration Disposal Facility.

Idaho
- Begin shipment of RH TRU waste offsite (6-year acceleration) supporting completion of shipments by 2012.
- Complete cleaning and grouting of second pillar and panel vaulted tank, supporting acceleration of tank farm facility closure by 4 years to 2012.

Lawrence Livermore National Laboratory-Livermore Site
- Construct, install, and operate a new treatment system to address groundwater contamination.

Los Alamos National Laboratory
- Permanently dispose of over 600 cubic meters of legacy TRU waste through an integrated strategy of segregating, decontaminating, and shipping to Waste Isolation Pilot Plant (WIPP).
- Complete shipment of 2,000 drums and initiate retrieval of legacy TRU waste stored below grade.

Nevada Test Site
- Complete remediation of 55 release sites.
- Continue to dispose of low-level waste from complex-wide generators in support of closure of other EM sites.
- Continue characterization and shipments of TRU waste to WIPP.

Oak Ridge
- Complete East Tennessee Technology Park K 29/31/33 decommissioning for re-use (one-year acceleration), supporting closure of the site 8 years earlier than planned.
- Complete Molten Salt Reactor Experiment flush salt removal, and complete fuel salt removal from the first of two drain tanks.

Pantex
- Continue pump and treatment of the perched groundwater and evaluation of more efficient cleanup technologies to mitigate the contaminated plume.
- Complete demolition of Zone 10 ruins and initiate actions for the demolition of Building 12-24 Complex.

Savannah River
- Eliminate low-level waste legacy inventory
- Complete major remediation projects in the testing and experimental areas

WIPP

- Increase carrier capacity from 25 to 34 shipments of TRU waste per week.
- Procure 11 RH trailers for a total of 14.
- Complete TRUPACT-II (a transportation container to safely transport either TRU waste or standard waste boxes) fabrication to obtain fleet of 84 TRUPACTs.

Maintain closure schedules: Three major sites, Rocky Flats, Fernald, and Mound, have accelerated closure schedules. In addition, two smaller sites, Ashtabula and Battelle-Columbus are scheduled to close in 2006. Funding through the FY 2004 budget will allow these sites to remain on track toward project completion and site closure.

At Rocky Flats, FY 2004 funding provides for:

- Disposing of more than 109,000 cubic meters of low and mixed low level waste.
- Disposing of more than 8,600 cubic meters of TRU waste. (70 percent complete)
- Completing the decontamination and decommissioning of 72 work sets in Buildings 371, 717, 771, and 776.
- Cleaning 194 environmental release sites. (81 percent complete)

At Fernald, FY 2004 funding provides for:

- Treatment and shipment offsite of 150,000 tons of waste pit material, which cumulatively represents approximately 80 percent of the total.
- Construction completion of Silos 1, 2, and 3 retrieval facilities.
- Completion of D&D of Plant 1 Complex Phase II, Liquid Storage Complex Phase II, and Pilot Plant Complex.

At Mound, FY 2004 funding provides for:

- Continued removal of high concentrations of tritium from Tritium Effluent Reduction Facility to allow for early shutdown.
- Completion of soil excavation phase of Potential Release Site 66 and completion of the total remediation of Potential Release Sites 68 and 267. These three Potential Release Sites represent 38 percent of the total soil remediation remaining.

At Ashtabula, FY 2004 funding provides for:

- Complete disposal of 100 percent of building remediation debris generated in FY 2003.
- Initiation of excavation and shipment of remaining estimated known scope (i.e., 38,000 tons) of contaminated soil to a licensed disposal site.

At Battelle-Columbus, FY 2004 funding provides for:

- Demolition of buildings JN-2 and JN-3.

Integrate technology development and deployment: An integrated technology development and deployment program is an essential element for successful completion of the EM cleanup effort and for fulfilling post-closure requirements. The EM Technology Development and Deployment (TDD) program provides technical solutions and alternative technologies to assist with accelerated cleanup of the DOE complex.

Through the FY 2004 budget, EM technology development and deployment investments are focused on high-payoff site closure and remediation problems through a two pronged approach: Closure Projects, and Alternative Projects.

Closure Projects: Principal near term closure sites (such as Rocky Flats, Fernald, and Mound) will be provided with technical support and quick response, highly focused technology and development deployment projects. The goal is to ensure that accelerated site closure schedules are achieved.

- At Rocky Flats and Ohio closure sites, technical assistance teams will assess critical technical issues and provide technology alternatives including the treatment and disposition of orphaned waste streams.
- At Mound, innovative technologies will be developed to determine and enable treatment of radioactive contaminated soil beneath buildings.
- At Fernald, the vacuum thermal desorption demonstration will be completed to provide a technical solution for an orphaned waste stream.

Alternative Projects: Alternative approaches and step improvements to current high-risk/high cost baseline remediation projects are our second focus. The goal is to enable cleanup to be accomplished safely, at less cost, and on an accelerated schedule. EM is focusing funds for FY 2004 on:

- Alternatives For Tank Waste Immobilization;
- Alternatives for Carbon Tetrachloride Source Term Location;
- Alternatives for Remediation of Leaked High-Level Waste below Tanks
- Alternatives for Disposition of High-Level Salt Waste;
- Alternatives for Immobilization of High-Level Sludge Waste;
- Alternatives for Remediation of Chlorinated Ethenes using Monitored Natural Attenuation;
- Alternatives for Deposit Removal at Gaseous Diffusion Plants;
- Alternatives for Cleanup of Trichloroethylene under Buildings (Paducah); and
- Alternatives for Expedited Processing of Scrap Metal/Equipment.

CONCLUSION

We planted the seedlings of transformation one year ago. We have fostered and guided the reforms. New ideas and breakthroughs have grown from looking beyond the paradigm of risk management to the new focus of accelerated risk reduction and cleanup. New strategies and plans are thriving.

We are experiencing the realization that for the first time, the goal of completing EM's mission is within our grasp. We have set into motion a reformed cleanup program – one designed and managed to achieve risk reduction not just risk management; to shift focus from process to product; to instill the kind of urgency necessary to clean up and close down the nuclear legacy of the Cold War and to protect human health and the environment.

We are at a turning point for this program. We must not lessen our resolve. We ask for your support to continue this important work. We must avoid passing this intolerable inheritance onto our children. Accelerating cleanup by 35 years and saving over $50 billion is a wise investment for our children's future.

We look forward to working with Congress and others to achieve this goal.

HOUSE ARMED SERVICE COMMITTEE
SUBCOMMITTEE ON STRATEGIC FORCES
MARCH 6, 2003
DR. EVERET H. BECKNER
DEPUTY ADMINISTRATOR FOR DEFENSE PROGRAMS
NATIONAL NUCLEAR SECURITY ADMINISTRATION

Thank you for the opportunity to appear today to discuss the FY 2004 President's Budget Request for the National Nuclear Security Administration, specifically the Stockpile Stewardship activities carried out by the Office of Defense Programs. The budget request for this vital national security program totals $6.3 billion, an increase of $533 million, about 9.1 percent, over the comparable FY 2003 budget request. This request supports the requirements of the Stockpile Stewardship program as defined by Presidential Directives, Department of Defense requirements and the Nuclear Posture Review.

Budget Overview

The budget for Stockpile Stewardship is allocated among three major program lines-Directed Stockpile Work (DSW), Campaigns, and Readiness in Technical Base and Facilities (RTBF). Directed Stockpile Work (DSW) is focused on the maintenance and evaluation of the nuclear weapons stockpile and the refurbishments needed to maintain the stockpile well into the future. The budget request for DSW totals $1.3 billion, an increase of $63 million, about 4.9 percent, over the comparable FY 2003 budget request. Campaigns allow the NNSA to move to "science-based" judgments for stewardship, utilizing experiments, simulations, and surveillance data in place of nuclear testing. Campaigns contribute technology needed to carry out the DSW, as well as foster new ideas and concepts that will provide opportunities for cutting-edge improvements to sustain, and if necessary, enhance the effectiveness of the stockpile over the long term. The budget request for Campaigns totals $2.4 billion, an increase of $229 million, about 10.6 percent over the comparable FY 2003 budget request. RTBF funding is devoted to operating key defense facilities activities across the weapons complex. The budget request for RTBF totals $1.6 billion, an increase of $111.2 million, about 7.4 percent over the comparable FY 2003 budget request. The remainder of the Weapons Activities budget request is composed of Facilities and Infrastructure Recapitalization Program (FIRP), Secure Transportation Asset (STA), and Safeguards and Security (S&S). The budget request for these activities total $1.0 billion, an increase of $127 million, about 14.6% over the comparable FY 2003 budget request. FIRP is revitalizing the physical infrastructure of the nuclear weapons complex. STA and S&S protect our assets.

Stockpile Stewardship

The President's FY 2004 request for Stockpile Stewardship continues to build and expand on the scientific and engineering successes that are the hallmarks of this program. It will also allow us to meet our requirements under the terms of the Nuclear Posture Review including enhancing test readiness, reinvigorating the advanced concepts work in the weapons laboratories, and restoring the weapons complex to meet the national security requirements of the 21st Century. Significant milestones we expect to achieve this year include:

- Delivery of the first certifiable W88 pit;
- Begin irradiation of the first Tritium Producing Burnable Absorber Rods in the TVAs Watts Bar Reactor;
- Continued delivery of W87 Life Extended warheads to the Air Force;
- Complete environmental documentation in support of the Modern Pit Facility;
- Delivery of four ultraviolet beams of NIF laser light to the target chamber;
- Initiate Stockpile Stewardship experiments in NIF;
- Perform 2 and 3 dimensional simulations of aging stockpile weapons focused on LEP activities;
- Safely ship nuclear weapons, weapons components, and nuclear materials through the Secure Transportation Asset;
- Conduct subcritical experiments at the Nevada Test Site to better understand plutonium aging;
- Begin work on the Advanced Concepts and in particular, on the RNEP Phase 6.2 activities with the Air Force.

These major milestones will be accomplished by a weapons complex that will also manufacture the thousands of components needed to maintain the stockpile. The complex will also carry out hundreds of smaller scale experiments, perform surveillance activities, address Significant Finding Investigations, conduct flight tests with the support of the DoD, deploy new manufacturing tools and processes at the production plants, and safely dismantle weapons excess to national security requirements.

These and other activities are dependent on retaining today's highly skilled workforce and recruiting the next generation of stockpile stewards. Over the last several years, NNSA has made significant headway on this all-important front. Critical skill vacancies across the complex have been reduced to 8 percent. Inextricably linked to recruitment and retention is providing the quality workspace and fully functioning tools and technologies needed by our scientists and engineers to carry out their work. Two accounts in the budget, Readiness in Technical Base and Facilities (RTBF) and Facilities and Infrastructure Recapitalization Program (FIRP), are essential to the operation, maintenance, and renewal of physical infrastructure. RTBF provides the funding needed to operate and maintain the facilities required for certification, thus ensuring the vitality of the NNSA national security complex and its goal of a consistent readiness level. FIRP is a capital renewal and sustainability program designed to eliminate maintenance backlogs and restore, rebuild, and revitalize the physical infrastructure of the nuclear weapons complex. FIRP addresses an integrated, prioritized list of maintenance and infrastructure projects, separate from the maintenance and infrastructure efforts of RTBF, which will significantly increase the operational efficiency and effectiveness of the NNSA sites.

I would now like to highlight several activities under the Stockpile Stewardship program that I believe are of particular interest to this committee.

Test Readiness

While I continue to have complete confidence in the ability of the Stockpile Stewardship Program to continue to ensure the safety, security, and reliability of this Nation's nuclear deterrent, we must maintain our ability to carry out nuclear weapons tests. Our current readiness posture to conduct such a test is 24 to 36 months, as established in a 1993 Presidential Decision Directive. Last year's Nuclear Posture Review (NPR) stated that this period should be reduced in order to provide options to deal with defense policy requirements, including the possibility of unanticipated problems in the stockpile. A study completed in July 2002 confirmed that additional work was required to maintain the present posture, but it also led us to conclude that the right posture is to be ready for a test within approximately 18 months. With FY 2003 funding now in place, we intend to begin the transition to an 18-month posture. The Nuclear Weapons Council has concurred that our intended action is appropriate. The transition to this new readiness posture is expected to take approximately three years.

Although there have been discussions about a transition to shorter times there is concern that an unnecessarily expedited time-frame may cause adverse effects on critical personnel resources and require significantly more funding. It is not likely that we will want to be able to match the short lead times when the weapons complex conducted multiple underground tests annually, nor is it prudent to tie-up important resources to indefinitely maintain an extremely short test readiness posture. Since device and diagnostics preparations are driven by the particular weapon to be tested and the questions to be answered by the test, such a posture might not be responsive to a surprise in the stockpile. The NNSA is studying this matter and I will soon be reporting to the Congress on these subjects as directed in the FY 2003 Defense Authorization Bill.

Advanced Concepts / Robust Nuclear Earth Penetrator

The NPR also highlighted the importance of pursuing Advanced Concepts work to ensure that the weapons complex can provide nuclear deterrence options for decades to come. To that end, the FY 2004 budget includes $21 million for Advanced Concepts work. $15 million will be allocated to the Robust Nuclear Earth Penetrator (RNEP). The remainder of the funding will be divided between the weapons laboratories for Advanced Concepts work. The vision is for small teams in coordination with DoD to assess evolving military requirements, investigate options, and ensure that DoD understands what is and is not possible. The teams will carry out theoretical and engineering design work on one or more concepts. These activities might proceed beyond the "paper" stage and include a combination of component and subassembly tests and simulations to introduce an appropriate level of rigor to challenge our designers. These activities might also culminate in an integral flight or laboratory test, or a subsequent decision to proceed with further development activities.

NNSA will begin an in-depth study on the Robust Nuclear Earth Penetrator (RNEP) once the report required by the FY 2003 National Defense Authorization Act has been submitted by the Department of Defense to the Congress and the 30 days have elapsed. As members know, this program will examine whether or not two existing warheads in the stockpile - the B61 and the B83 - can be sufficiently hardened through case modifications and other work to allow the weapons to survive penetration into various geologies before detonating. This would enhance the Nation's ability to hold hard and deeply buried targets at risk. The RNEP feasibility and cost study is currently scheduled for completion in 2006; however, we are looking at opportunities to reduce study time.

Stockpile Life Extension

While preparing for the future, the labs and plants are working very hard to extend the life of several elements of the existing nuclear weapons stockpile through the Stockpile Life Extension Program (SLEP). The NPR reaffirmed the decision as reached by the Nuclear Weapons Council on the timing, pace, scope, and technical aspects of the LEPs for the W76, W80, B61-7/11, and ongoing W87 work. Through this program, new subsystems and components are designed, built, tested and installed, thereby extending the operational service life for these warheads for some 30 additional years.

For the last several years, we have been performing the work to extend the life of the W87 warhead for the Air Force. This work is ongoing at Y-12, Lawrence Livermore, Sandia and Pantex. We are more than half way through this effort and expect to wrap up the work by early 2004.

Life extension for the W76 involves a comprehensive overhaul of the warhead, including replacement or refurbishment of the Arming, Firing and Fuzing set, high explosives, gas transfer system and other components. We will also be requalifying the weapon primary. For the W80, we will be replacing the Trajectory Sensing Signal and Neutron Generators, the tritium bottles and incorporating surety upgrades. For the B61 we will be refurbishing the secondary. The First Production Units for these systems are presently scheduled for delivery to the Navy and Air Force in: FY 2007, FY 2006 and FY 2006, respectively.

National Ignition Facility

I am pleased to report that tremendous technical progress has been achieved over the last year at the National Ignition Facility (NIF). Its mission is to obtain fusion ignition in a laboratory setting by imploding a BB-sized capsule containing a mixture of the hydrogen isotopes, deuterium and tritium. The NIF will provide the capability to conduct laboratory experiments to address the high-energy density and fusion aspects that are important to both primaries and secondaries in the nuclear stockpile.

In December 2002, the first four NIF laser beams were activated to generate a total of 43 kilojoules of infrared laser light in a single pulse. This equates to about 10 times more power than the entire U.S. electrical generation capacity, but only lasting 5 billionths of a second. In

January 2003, NIF delivered its first beam of ultraviolet laser light focused onto a target at the center of the 30 foot-diameter target chamber. With this accomplishment, all elements of each of the NIF critical subsystems has been successfully activated and operated.

The NIF plans to deliver four ultraviolet beams of laser light to the target chamber this Spring with Stewardship experiments slated to begin in FY 2004.

Advanced Simulation and Computing

The Advanced Simulation and Computing (ASCI) Campaign is creating simulation capabilities that incorporate modern physics and engineering models to improve our ability to predict with confidence the behavior of the nuclear weapons in the stockpile. These models, validated against experimental data from past above-ground and underground nuclear tests, are the repositories of expert designer judgment as well as the best scientific representations of our current knowledge of the performance of the nuclear weapons. The ASCI Campaign is driving the integration of the theoretical and experimental efforts within the Stockpile Stewardship Program.

At the same time that ASCI continues the development of the most powerful computer capabilities needed for the future, the modern simulation tools previously developed by ASCI B the Blue Pacific and White Machines at LLNL, the Red Machine at SNL, and the Blue Mountain and Q machines at LANL are being applied day-to-day to address immediate stockpile concerns. ASCI codes are being used to close Significant Finding Investigations as well as to support Life Extension Programs (LEPs) for the W76, W80, W87, and B61. These activities are enabled by the ongoing supercomputing infrastructures at the national laboratories, encompassing both continuing operations as well as research in new techniques for storage, visualization, networking, and all aspects of the infrastructure required by modern computing.

By FY 2008, ASCI will deliver a high fidelity, full-system physics characterization of the functioning events of a stockpile nuclear weapon. At that time, the campaign will deliver a suite of validated codes, running on supercomputer platforms, acquired though open procurement, with user-friendly environments, advanced visualization tools for analysis, and the entire support structure to integrate the components together. Other program deliverables include high-performance storage and high-bandwidth networks. In support of a true integrated SSP effort, the ASCI Campaign continues to push the envelope in distance computing as well as in advanced encryption techniques and other approaches to ensure secure, classified networking.

Office of Secure Transportation

The Office of Secure Transportation is responsible for safely and securely moving nuclear weapons, special nuclear materials, select non-nuclear components, Limited Life Components for the DOE and the DoD. This work is carried out by 225 Federal agents stationed at three sites-Pantex, Oak Ridge and Albuquerque. These highly dedicated and skilled agents are authorized to use deadly force in the performance of their duties. Employing highly modified tractor trailors and escorts vehicles, and secure and redundant communications they have amassed an impressive safety record of over 100 million accident free miles without cargo compromise. I would note that this office also provides support to other elements of the DOE, including the Offices of Environmental Management and Nuclear Energy.

Pit Manufacturing & Certification Campaign

Restoring the Nation's ability to manufacture plutonium pits in support of the stockpile has been a central challenge for the stewardship program since the closure of the Rocky Flats plant in 1989. Never before has the weapons complex been asked to manufacture and certify pits without nuclear testing. I am very pleased to report that late this Spring, Los Alamos is scheduled to manufacture the first certifiable W88 pit. LANL also remains on-track to manufacture a war reserve pit by 2007. To achieve this critical milestone, LANL has produced a number of development pits and has performed a series of engineering tests and physics experiments to confirm pit performance.

While the TA-55 facilities at LANL are adequate to support the W88 pit campaign, they do not appear to be capable of supporting the manufacturing need for long-term stockpile support. NNSA has begun planning for a Modern Pit Facility (MPF) consistent with the Record of Decision for Stockpile Stewardship and Management and the NPR. In May 2002, the Secretary of Energy formally approved Critical Decision "0" (CD-0) for the MPF. NNSA is now examining 5 candidate sites-- Pantex, Waste Isolation Pilot Plant, the Nevada Test Site, Savannah River and Los Alamos-- as possible locations for the MPF. We expect to issue a Draft Environmental Impact Statement (EIS) later this Spring. Following a series of public meetings, a final EIS and associated Record of Decision will be issued. The program will prepare site specific environmental documentation if the ROD supports a decision to construct and operate a MPF. The FY 2004 request will allow conceptual design and other planning activities, NEPA work, and technology development activities to proceed on a schedule that will support a CD-1 decision in FY 2006.

Tritium

In addition to restoring plutonium manufacturing capabilities, NNSA will begin tritium production later this year when several hundred Tritium Producing Burnable Absorber Rods (TPBARs) are inserted into TVA's Watts Bar Reactor. However because of significant changes in stockpile size in the out- years as a result of the NPR and the Moscow Treaty, NNSA has, in concert with the DoD, adjusted the tritium production requirements to reflect these changes. NNSA remains fully committed to exercise all elements of its system for producing, extracting, and purifying new tritium, including initial operation of the Tritium Extraction Facility (TEF) being constructed at the Savannah River Site (SRS).

Timing of tritium production, extraction, and purification has also been delayed by approximately 17 months for two reasons: (1) under the NPR, stockpile requirements are reduced, and (2) to accommodate delays in completion of the TEF project. This program delay can be accomplished without impacting nuclear weapons readiness. A revised baseline has been approved increasing the Total Project Cost from $401 million to $506 million and delaying project completion from mid-FY2006 to late-FY 2007.

Since tritium decays by natural radioactivity at a rate of about 5 percent per year, and since irradiation service costs are the dominant operating costs in supplying tritium to the stockpile, it is prudent not to produce tritium beyond the stated national requirements. Since the program intends to complete and exercise all elements of the tritium production and purification system (including TVA's reactor(s) and the TEF) on a schedule that fully protects the stockpile requirements, irradiation services are being deferred in order to use funds planned for these activities to complete TEF.

DOCUMENTS SUBMITTED FOR THE RECORD

March 6, 2003

Oakland Tribune

Mini-nukes are too risky, experts say

Analysts cite few advantages, high dangers of radioactive fallout

By Ian Hoffman
STAFF WRITER

Wednesday, March 05, 2003 - As the Bush administration and Republican lawmakers contemplate taking nuclear war underground for attacks on buried bunkers full of nuclear, biological or chemical weapons, scientists are calculating the likelihood of success

So far, analysts outside the government say, the odds of destroying underground bunkers with low-yield nuclear weapons are debatable. But the weapons pose a significant risk of showering radioactive fallout and live toxins on civilians nearby As a result, arms-control advocates say, the weapons are scarcely worth the potential danger to U.S national security of reviving the world's interest in small nuclear arms

Computer simulations show low-yield nuclear weapons can collapse shallow buried bunkers that survive conventional weapons. And they will cause less collateral damage than strategic-class nuclear weapons that are 1,000 times more powerful.

But unless an adversary can be counted on to design bunkers for easy annihilation, with few, thin walls and simple geometries, nuclear weapons -- even neutron bombs -- won't guarantee destruction of anthrax, nerve gas or other lethal contents

Instead, scientists say, even a low-yield nuclear strike on a biowarfare storage bunker will dig a large, hot crater and blast a witch's brew of weaponized germs and radioactive fallout into the air

A donut-shaped wave of hazardous particles will roll outward for at least half a mile. Falling boulders and dirt will drop some toxins back into the crater, but finer contaminated dust will stay aloft in a deadly cloud of radioactivity and infectious spores that will drift at the whim of weather.

"It all vents to the surface I think people are tending to this conclusion more and more," said physicist Michael M May, former director of Lawrence Livermore Laboratory and former co-director at the Center for International Security and Cooperation at Stanford, where he is a research professor in the engineering department.

This scenario is at odds with the vision some defense theorists and hawks in Congress have nurtured for more than a decade -- that new low-yield earth penetrators and neutron bombs would enable "clean, surgical" nuclear strikes on Third World chemical, biological and nuclear arsenals dug in deeply

Leaked portions of the classified 2001 Nuclear Posture Review suggest this vision has evolved into post-Cold War policy. The National Nuclear Security Administration, the weapons arm of the U.S Energy Department, now is reestablishing advanced weapons concept teams at Lawrence Livermore and Los Alamos labs to explore penetrators, low-yield weapons and other ideas.

Scientists began studying those weapons in the 1950s. But today's debate is a redux of the early 1990s, with the start of the PLYWD or Precision Low-Yield Weapons Design program at the weapons labs and the Air Force's "Agent Defeat" program, which continues today to study destroying chemical and biological arms in bunkers

In 1993, as the Energy Department sought more money for studying low-yield weapons, Congress passed a ban on research leading to production of new weapons with yields below five kilotons, a third of the yield of the bomb dropped on Hiroshima. In the last two years, the law withstood GOP challenges in the Senate and the House Two weeks ago, House Republicans recommended its repeal and called for revival of new nuclear weapons development.

Movement toward the first new nuclear arms since the Cold War already has begun At the Pentagon Jan 10, Bush defense and nuclear weapons executives set the agenda for a classified meeting this August at Strategic Command Ten staff members of the Office of the Secretary of Defense were present, as well as several senior officials of the Energy Department and Strategic Command, plus scientists of Sandia, Livermore and Los Alamos weapons labs. Minutes show they talked of new low-yield weapons, earth penetrators, enhanced-radiation weapons or neutron bombs and "agent defeat" weapons. They talked of selecting weapons for "small builds" or limited production runs.

"It seems that a new nuclear agenda is being pushed full-steam ahead, despite the warnings of arms-control experts, the qualms of the rest of the world and the precarious position it puts our security in," Rep Ellen Tauscher, D-Alamo, told federal contractors last week in a critique of weapons nonproliferation policy

Sen. Dianne Feinstein, D-Calif., wrote Energy Secretary Spencer Abraham on Friday for an explanation, asking, "How can we effectively seek to dissuade others from developing nuclear weapons while we are going forward with the development of new nuclear weapons ourselves?"

Meanwhile, in January, the Defense Threat Reduction Agency or DTRA launched a $1.26 billion program for computer assessment of underground targets and whether nuclear penetrators or "bunker busters" would be needed to attack them, as first reported by the Los Angeles Times.

The agency is headed by Stephen Younger, a former Lawrence Livermore lab weapons designer who in June 2000, as nuclear-weapons chief at Los Alamos lab, argued for new precision, low-yield nuclear weapons.

His agency's documents say the military "needs to consider and evaluate the option of using nuclear weapons against its most difficult targets." Worldwide, that's more than 1,400 known or suspected strategic underground facilities, according to Defense Intelligence Agency estimates.

In North Korea, it's Kumchangn, a suspected nuclear-weapons factory tunneled inside a mountain. In Libya, it's a suspected nerve-agent plant called the Tarhuna Chemical Complex, also dug into a mountain. Iraq began piling sand around and digging in its weapons programs after Israeli jets destroyed its Osirak plutonium reactor Iran's Natanz complex, for processing and enriching uranium, has concrete walls eight feet thick and portions buried 25 feet underground. The Bush administration suspects its uranium is for weapons and not, as Iran claims, for nuclear power.

DTRA's new computers would assess whether nuclear strikes will destroy the bunkers and contents, and at what cost to civilian life. The latest simulations suggest low-yield weapons only will succeed in unlikely cases.

"We come to the conclusion it's not entirely effective," Stanford's May said of his work with a graduate student. "If the other side is so compliant as to design their storage facility so as to maximize the chances of it being destroyed, then you might get it all. But even if it's a low yield weapon and you're going fairly deep, complete neutralization cannot be assured."

Nuclear weapons produce copious neutrons and gamma rays, but their prospects for killing biological and chemical agents underground are actually poor, unless the weapon detonates inside a single-room bunker. The radiation typically is absorbed in just a few feet of soil, moisture or concrete. If a rogue dictator were still concerned, his best insurance might be water. Stationing plastic barrels of water around chemical and biological munitions underground would absorb much of the radiation. The problem, said May and scientists at the Council on Foreign Relations and the Federation of American Scientists, is two-fold: The United States usually doesn't have solid intelligence on the location, depth and contents of underground bunkers, plus materials limits and the laws of physics prevent nuclear or conventional bombs from penetrating very deeply into rock and hard soil, even if U.S. forces knew exactly where they were.

Sandia Laboratories designs the critical bomb casings for all nuclear penetrators. Veteran weapons engineer and former Sandia vice president Bob Peurifoy says more research isn't likely to produce a breakthrough. "The dirt isn't going to get any softer," he said

Built of the toughest metals, earth penetrators can plow no more than 50 or 60 feet into rock or concrete before taking so much crushing damage that they might not detonate. Princeton physicist Robert W. Nelson says his calculations show a nuclear weapon would have to go an impossible four times deeper to contain even a low-yield nuclear explosion.

"You end up deploying the very stuff you're trying to destroy," said Nelson, a senior fellow at the Council on Foreign Relations. "It could actually go a long ways downwind and affect your own troops and civilian populations."

"It produces so much fallout that if you used it near a city, instead of killing 150,000 people like you did at Hiroshima," Nelson said, "you'd kill forty or fifty thousand." In short, the United States would be deterred by its own weapon

The cloud of radioactive debris and live biowarfare agents or chemicals would present a unique, new peril from underground war.

"The world has never seen it, and I hope it doesn't," May said

Physicist Michael Levi, director of the Strategic Security Project at the Federation of American Scientists, said better intelligence rather than new nuclear weapons is the answer to buried bunkers in the Third World.

The biggest problem is not in developing powerful enough weapons but in finding the targets, said Levi, who studied the matter deeply in a paper titled Fire in the Hole.

He said, On the one hand we're seeing that the inspectors are having trouble finding Iraq's weapons of mass destruction. On the other hand people are talking about preemptive nuclear strikes. Someone has to ask the question, what are we going to destroy if we can't find it?

Air Force contractors are adding to the ranks of conventional earth penetrators. The Pentagon also can isolate underground bunkers by bombing the entrances and power lines, an approach known as functional defeat. An aerial drone can stand sentinel over the bunker entrances until Special Forces arrive to destroy the bunker.

Weapons physicists invented an astonishing array of low-yield nuclear arms for the Cold War, from missile-killing neutron warheads to suicide demolition charges and artillery shells to battlefield neutron bombs.

Former Soviet commanders say those U.S. weapons contributed in deterring attack on the West. But almost all of those weapons were withdrawn from the arsenal, some shelved in a bow to public outcry but often to a lack of practical use.

Military commanders judged them a battlefield liability. Placing the weapons close to the battlefront posed several problems, from the risk of losing weapons to enemy capture and putting too much command authority in the hands of junior officers to provoking a preemptive strike. If used, the weapons risked poisoning the battlefield, leaving NATO forces unable to advance and cities uninhabitable.

May, who led a Livermore weapons design division then managed all of the lab's weapons work before being named lab director, says he thinks the military services won't be any more enthusiastic this time around.

The military, they're very practical. They want things to be simple and to get done and not have a lot of side consequences. And this would have huge consequences, he said. This is not something that will appeal to a military commander if they can find anyway else to do it.

Other former lab directors and other scientists who have played strong roles in weapons development say the new proposed weapons, especially neutron bombs, won't add much to U.S. military capability.

I can't think of a mission right now where a low-yield nuclear weapon would be useful, said physicist Sidney Drell, an influential government adviser on nuclear-weapons research and professor emeritus at the Stanford Linear Accelerator Center.

You shouldn't blur the line between nuclear and conventional weapons, Drell said. I think most people I know, especially in the military, understand what an enormous move it would be to use a nuclear weapon. And it doesn't matter to me if it's one kiloton or 100, it's a horrible thing. You decide to use it, then you've crossed the threshold, you've crossed the Rubicon.

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Table 5
Site Funding Estimates, Total NNSA Programs
(Dollars in Millions)

	FY 2002	FY 2003	FY04 OA	FY04 WA	FY04 NN	FY04 NR	Total FY2004
Chicago Operations Office							
Ames Laboratory	0.2	0.2			0.2		0.2
Argonne Nat. Laboratory	27.2	21.4		1.1	26.9		28.0
Brookhaven National Laboratory	50.5	52.0		0.6	51.1		51.8
Chicago Operations Office	103.5	168.5	1.1	27.6	430.5		459.2
Environmental Measurements Laboratory	1.1	0.1			0.1		0.1
New Brunswick Laboratory	1.2	1.1			1.1		1.1
Idaho Operations Office							
Idaho National Engineering and Environmental Laboratory	57.2	57.5			1.5	61.2	62.7
Idaho Operations Office	1.0	0.9		0.6	0.6		1.2
Kansas City Site Office							
Kansas City Plant	356.8	380.6		395.3	0.3		395.6
Kansas City Site Office	7.1	7.5	7.3				7.3
Livermore Site Office							
Lawrence Livermore National Laboratory	1,066.8	1,025.0		941.4	82.3		1,023.7
Livermore Site Office	9.2	11.8	12.3				12.3
Los Alamos Site Office							
Los Alamos National Laboratory	1,315.4	1,352.0		1,312.8	157.7		1,470.5
Los Alamos Site Office	10.2	10.7	12.9				12.9
National Engineering Technology Laboratory	8.5	0.0					0.0

	FY 2002	FY 2003	FY04 OA	FY04 WA	FY04 NN	FY04 NR	Total FY2004
NNSA Service Center							
Atomic Energy of Canada, Ltd.	0.7	1.0			1.1		1.1
General Atomics	12.0	9.7		10.9	1.1		12.0
Lawrence Berkeley National Laboratory	4.2	5.0			5.1		5.1
Naval Research Laboratory	21.3	10.0		10.5			10.5
NNSA Service Center (all other sites)	192.0	215.4	111.1	22.7	72.0	2.3	208.2
Nonproliferation and National Security Institute	0.3	0.1			0.1		0.1
University of Rochester/LLE	34.7	36.4		40.1			40.1
Nevada Site Office							
Nevada Site Office	329.7	331.1	17.4	303.5	22.4		343.2
Remote Sensing Laboratory	4.8	0.7			0.8		0.8
Oak Ridge Operations Office							
Oak Ridge Institute for Science and Engineering	9.3	9.2		8.2			8.2
Oak Ridge National Laboratory	92.5	71.3		6.8	67.6		74.4
Office of Science and Technical Information	0.1	0.1		0.1			0.1
Y-12 Site Office	13.1	16.3	11.7	6.4			18.1
Y-12 National Security Complex	597.1	682.6		670.6	78.3		748.9
Pantex Site Office							
Pantex Plant	371.2	380.2		424.1	9.3		433.5
Pantex Site Office	10.3	10.8	11.9				11.9
Pittsburgh Naval Reactors Office							
Bettis Atomic Power Laboratory	357.5	360.9				392.2	392.2

	FY 2002	FY 2003	FY04 OA	FY04 WA	FY04 NN	FY04 NR	Total FY2004
Pittsburgh Naval Reactors Office	7.4	7.6				8.1	8.1
Richland Operations Office							
Richland Operations Office	0.4	0.3		0.6			0.6
Pacific Northwest National Laboratory	131.9	84.4		12.1	67.1		79.2
Sandia Site Office							
Sandia National Laboratories	1,162.5	1,261.0		1,215.3	127.5		1,342.8
Sandia Site Office	8.6	9.1	10.5				10.5
Savannah River Operations Office							
Savannah River Operations Office	11.9	13.6		0.6	27 1		27.7
Savannah River Site Office	4.4	3.6	3.5				3.5
Savannah River Site	289.6	312.0		244.5	63.1		307.6
Savannah River Technology Center	8.3	5.7			5.8		5.8
Schenectady Naval Reactors Office							
Knolls Atomic Power Laboratory	254.0	263.8				287.5	287.5
Schenectady Naval Reactors Office	6.0	6.3				6.5	6.5
Washington DC Headquarters	643.5	706.1	148.2	750.4	24.4	10.6	933.6
Russian Federation	42.0	64.0			0.0		0.0
Other	48.3	34.8	0.1		15.1		15.1
Subtotal, NNSA	7,685.5	8,002.4	348.0	6,407.0	1,340.2	768.4	8,863.6
Adjustments	(100.5)	(93.0)	0.0	(29.0)	0.0	0.0	(29.0)
Total, NNSA	7,585.0	7,909.4	348.0	6,378.0	1,340.2	768.4	8,834.6

QUESTIONS AND ANSWERS SUBMITTED FOR THE RECORD

March 6, 2003

QUESTIONS SUBMITTED BY MR. EVERETT

Mr. EVERETT. The Advanced Simulation and Computing (ASC) campaign develops the computational capabilities required to simulate nuclear weapons physics and performance. ASC has been a $700M a year class effort for a number of years. The goal of ASC is to deliver a 100 teraOPS system in fiscal year 2005, which was thought to be sufficient for a full physics, three dimensional weapon simulation. The fiscal year 2004 request includes funds for assessment of a 200 teraOPS computer. Have NNSA's requirements for a threshold computational capability changed? At what point would we start to see investment in new computational capabilities begin to decline?

Dr. BECKNER. The Advanced Simulation and Computing (ASC) campaign is providing a critical tool for the Stockpile Stewardship Program to assess and certify the safety, performance, and reliability of nuclear weapons. However as the Nation's nuclear stockpile continues to age, the task of certification will grow increasingly difficult. The 100 teraOPS platform is still a threshold capability for high-fidelity, full-system, three-dimensional weapons simulation. A platform of this size will permit a few of these calculations to be performed each year. However, routine calculations at this scale, required for a successful Stockpile Stewardship Program, will be possible only with substantially greater computing capacity. Therefore, the ASC program will continue to invest in hardware, software development and computer science research at the three national weapons laboratories.

While our FY 2004 budget request did not include funding for a 200 teraOPS computer, we do see an opportunity to provide for the capacity (a larger number of calculations) that the Stewardship program requires. Since procuring these major computer systems begins several years in advance of actual delivery, we want to assess capacity requirements necessary for the FY 2007 time frame.

We anticipate that investment in computers for our nuclear weapons laboratories should be maintained at the level of the FY 2004 request. We have found that these systems can be operated for approximately five years before vendor support begins to decline and the systems need to be replaced. At the same time, technology advances allow us to build more capable replacement systems to support our nuclear weapons program. While our quest to build a minimal 100 teraOPS capability is proceeding successfully, our future investments look to make that capability available to a larger community of users.

Mr. EVERETT. The Environmental Management program has a defined scope and an aggressive agenda of site clean up and closure, including the decontamination and decommissioning of numerous facilities such as the F and H Canyons at the Savannah River Site. At the same time, the defense nuclear complex must continue to deal with an existing and future waste stream.

Corporately, who is responsible for ensuring that those facilities, for which future requirements may exist, remain viable?

Secretary CARD and Secretary ROBERSON. Secretary Abraham is ultimately responsible for ensuring that facilities and resources remain viable to meet Departmental missions and objectives.

- I, and Acting Under Secretary Brooks, coordinate recommendations that would eliminate a Departmental capability.
- Elimination of Departmental capabilities are reviewed and approved by the Secretary.
- Regarding the Savannah River Site F- and H-Canyon chemical separation facilities:
  - all nuclear materials stabilization and disposition preparation processing activities that required F-Canyon have been completed;
  - I support the Office of Environmental Management's plans to deactivate F-Canyon as soon as possible, allowing the Department to apply the savings to other important cleanup activities; this plan was coordinated with the National Nuclear Security Administration and approved by Secretary Abraham in a June 24, 2002, letter to the Defense Nuclear Facilities Safety Board;

- The currently planned and identified processing needs require H-Canyon facilities to operate at least through 2007;
- H-Canyon facilities have the capabilities to process any nuclear materials that might require processing through a canyon for stabilization or disposition purposes; future decisions for nuclear materials disposition may require the H-Canyon or its associated facilities;
- H-Canyon facilities will remain operating or be kept in an operable condition until the Department has determined firm disposition paths for all nuclear materials that are otherwise suitable for H-Canyon processing;
- The Secretary of Energy would need to approve any actions that would place the H-Canyon facilities in a non-operable condition.

EM Q&A REVIEW BLOCK

Reviewer/ Author:	David Bivans	Reviewer:	Steve Ferguson for William Dennison σ4
Routing Symbol:	EM–42	Routing Symbol:	GC–51
Date:	3/21/03	Date:	3/27/03
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Reviewer:	Bob LaGrange	Reviewer:	Bill Levitan σ4
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Reviewer:	Mark Frei	Reviewer:	
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Date:	March 24, 2003	Date:	
Phone:	301–903–0670	Phone:	
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Reviewer:	Joyce Brady/Steve Lerner	Reviewer:	
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		S–1 Approval:	
		Date:	

Mr. EVERETT. The Environmental Management program relies on the assistance of NNSA's Office of Transportation Safeguards (OTS) to move special nuclear materials for final disposition. In you view, does OTS have sufficient capacity so as not to adversely impact your plans for accelerated cleanup and closure?

Secretary CARD and Secretary ROBERSON. The principal mission of the Office of Transportation Safeguards (OTS) is the safe, secure shipment of nuclear weapons, weapons components and special nuclear materials in support of the Stockpile Stewardship Program. The projected OTS workload from all of the DOE and NNSA programs exceeds current and planned capacities of the Transportation Safeguards System (TSS). To address this issue, the Department has created a Secure Transportation Asset Advisory Board (STAAB) comprised of program representatives at the Deputy Assistant Secretary level and chaired by Brig. Gen. Haeckel, Principal Deputy Administrator for Military Applications, Office of Defense Programs, National Nuclear Security Administration. The STAAB has approved shipping prioritization guidelines for the Transportation Safeguards System. The Environmental Management program transportation campaigns are currently priority level (three out of seven). Projected workload analysis indicates that OTS will not have sufficient capability to meet all of the shipping requirements at this prioritization level. Furthermore, programs in support of lower priority shipments (priorities four through seven) including weapon dismantlements, support for refueling research reactors, and delivery of power sources to NASA, will also be adversely impacted. The STAAB is considering compensatory measures that include expanding OTS capacity at a faster pace than currently planned or adjusting preliminary requirements for the Environmental Management transportation campaign.

QUESTIONS SUBMITTED BY MR. SPRATT

Mr. SPRATT. The budget request contains funding for an Environmental Impact Study of locating a Modern Pit Production facility at one of several sites in the complex. As I understand it, this EIS will recommend a preferred site for the pit production facility. At the same time, I am not aware the Department has made a final decision that we need new pit manufacturing capacity, beyond what is currently available. So I am concerned that the EIS process would begin ahead of a decision on whether the facility is in fact needed.

First, I would like some detail about the production capacity currently available at Los Alamos National Laboratory, at the TA–55 facility, and its potential to expand production.

Second, if this production capacity is not adequate, why not?

Dr. BECKNER. The Department has not made a final decision to proceed with a Modern Pit Facility to ensure long-term pit production to meet the needs of the United States nuclear stockpile. However, a Critical Decision-0 (CD–0) on mission need for a Modern Pit Facility (MPF) was made in May 2002, establishing the need for increased pit production capability. This Decision enabled the start of the National Environmental Policy Act (NEPA) process, including preparation of an Environmental Impact Statement (EIS), and conceptual design of a MPF in FY03. A preferred site will be announced, if the Secretary makes a Record of Decision (ROD) in FY04 to proceed with a MPF. The ROD will be based on the MPF Environmental Impact Statement and other factors such as cost and technical considerations.

Currently, only small numbers of development pits are being manufactured at Los Alamos National Laboratory (LANL). However the Department is working to establish a small (10 pits/year) interim capability at LANL in FY07 for pits that meet Department of Defense requirements for use in the nuclear stockpile. The projected capability of 10 pits/year will not meet future needs even if the United States nuclear stockpile is significantly reduced in size.

Expansion of the TA–55 facility at Los Alamos is one alternative that is being evaluated in the NEPA process for a Modern Pit Facility. The current age and expected lifetime of the TA–55 facility and the capacity of the enhanced TA–55 to meet future stockpile needs will be assessed.

QUESTIONS SUBMITTED BY MR. THORNBERRY

Mr. THORNBERRY. For the fiscal year 2004 budget, list the total amount of funding for each NNSA site, including headquarters?

Dr. BECKNER. The answer is provided on page 23–25 of the NNSA Executive Budget Summary, found in Volume 1 of the Congressional Budget Justification. I have reproduced the pages for your convenience: [See table on page 60.]

Mr. THORNBERRY. What shortfalls do you anticipate in this year's security-related budget for the NNSA sites and plants? How long is it taking to get new security guards properly cleared to work at NNSA facilities? Is the amount of time considered acceptable? What is being done to reduce the backlog? Will you have to divert funds from other areas to pay for security? What impact might this have on stockpile stewardship?

Dr. BECKNER. We do not anticipate any shortfalls in the FY 2004 security related budget. The FY 2004 budget request for Safeguards and Security is sufficient to meet our currently known needs for ongoing Safeguards and Security activities. This request was developed with information from an assessment of the complex's needs following the September 11, 2001, attacks, and was formulated using the new PPBE process to assure that funding requests are closely linked to established program plans and balanced across the NNSA.

It takes approximately 8–12 months to process initial clearances for new guard personnel. During this time period, the guards attend training qualification courses and perform duties that do not require a final security clearance. The NNSA has coordinated with the Office of Security to streamline the processing of initial clearances. When possible, the clearances are submitted for processing on an expedited basis. The Accelerated Access Authorization Program (AAAP) is used, alternatively, to process and grant interim access authorizations to allow for more immediate utilization of newly hired guards, pending final processing of clearance paperwork. In addition, the Office of Security has obtained agreement from the Federal Bureau of Investigation to expedite a limited number of clearance requests from the Secretary each month.

In the event of emergent budget requirements, it is our policy to work within the base budget and accommodate what we can before requesting additional funding authority. The sites will also work throughout the coming year to identify areas of efficiencies and operational improvements that could reduce S&S costs while maintaining the level of protection we require. Throughout our efforts, we will try to accommodate S&S program needs within available funding, minimizing any impact to the stockpile stewardship program.

Mr. THORNBERRY. Is the NNSA Operation of Facilities budget underfunded in future years based on the assumption that the continued FIRP money and supplemental plus-ups will fill the gap to fund necessary requirements? Based on the Future Years National Security Plan, it could be concluded that over the long term maintenance backlogs may not be reduced. For example, today one site has about $340 million maintenance backlog. At the projected funding level, in FY05 it is anticipated this site will have a $350 million backlog. Can you explain how this can be?

Dr. BECKNER. With what we know today, the Readiness in Technical Base and Facilities (RTBF) Operation of Facilities budget identified in the Future Year Nuclear Security Plan (FYNSP) in conjunction with the Facility Infrastructure Recapitalization Program (FIRP) budget is adequate to maintain the complex in a safe, secure, and compliant status. The sites are currently performing a detailed condition assessment to baseline the "real maintenance backlog" in the complex. As these assessments are completed an accurate backlog number will be established. Without an established baseline, it is difficult to ascertain the cause of increases in the reported backlog. For example, in some case the reported backlog is increasing due to more rigorous condition assessments which identify additional maintenance needs which existed but were not previously reported. Having an established baseline will allow us to measure the effectiveness of our maintenance programs and to take action if progress falls below expectations. The RTBF program is committed to ensuring its facilities have responsible maintenance programs and adequate funding to support the mission. NNSA has established a goal of stabilizing (i.e., zero growth) the program facility deferred maintenance backlog by FY05 and to reduce it to industry standard (or better) levels by FY09. RTBF will fund the complex at an adequate level, this will enable (FIRP) to execute its deferred maintenance reduction responsibilities and help recapitalize the complex. Additionally, part of FIRP will reduce the facility footprint at the sites by eliminating many of the excess facilities. Reducing the number of excess facilities will contribute towards reducing the maintenance backlog since part of the backlog is associated with those obsolete facilities.

This program partnership between FIRP and RTBF, measured and assessed annually, will ensure that the NNSA corporate commitment to deferred maintenance reduction is met. These processes will include a combination of qualitative and quantitative measures to guide budgeting and investment decisions as the means to ensure that RTBF will remain the program for maintaining the Nuclear Weapons Complex, while FIRP reduces the backlog of deferred maintenance.

Mr. THORNBERRY. Describe the process for increasing the threat condition at each NNSA site. Who makes the decision? Who makes the determination on what actions are taken at each site? What is or was the foundation for those decisions? Is it the same each time a security level rises? How often are these decisions and the criteria reviewed? What actions could be taken at each site to allow more work to occur during the increased threat levels? How much would this cost and would it be less than the costs of losing work days?

Dr. BECKNER. The Department of Homeland Security issues notifications to all federal agencies regarding changes in threat levels. The NNSA facilities respond to changes in the Security Condition (SECON) level consistent with the Department of Energy Notice (DOE 473.8, Security Conditions) and NNSA Policy Letter NAP–9, SECON Implementation. The NNSA Policy Letter requires each operation or facility to prepare a site-specific plan of actions taken at each SECON level. The plans are approved by the site manager and at the Headquarters program office. When SECON levels change, there is an initial confirmation, then a 48-hour follow-up, interactive assessment with participation by Headquarters and site managers. Follow-on assessments are conducted on an as-needed basis, with continuous communication between site managers and headquarters program managers. Some of the site-specific implementation plans include approved modifications to security measures at the various SECON levels, which factor in local threat and intelligence information. The costs of implementing these modifications vary by site, and generally provide cost savings.

QUESTIONS SUBMITTED BY MRS. WILSON

Mrs. WILSON. Please provide a budget profile for the past 20 years for the nuclear weapons advanced development program, which in your FY04 request is $21.0 million.

Dr. BECKNER. The table below provides the requested budget profile from FY 1983 to FY 1991 and FY 2003-FY 2004. No funding was provided for these activities during the period of FY 1992 to FY 2002, due to the policies of the previous Administration against work on nuclear warhead advanced concepts.

Dollars in Millions

In Then-Year Dollars

	Research & Development	Testing	Production	Total Advanced Concepts	Weapons Activities	Advanced Concepts/ Weapons Activities
FY 1983	83.2	101.4	14.4	199.0	2,435.3	8.2%
FY 1984	99.9	168.0	15.4	283.3	2,847.8	9.9%
FY 1985	131.9	101.1	28.8	261.8	3,173.6	8.2%
FY 1986	71.4	44.4		115.8	3,091.3	3.7%
FY 1987	37.5	50.6		88.1	3,353.8	2.6%
FY 1988	56.1	91.0		147.1	3,467.2	4.2%
FY 1989	66.6	87.3		153.9	3,539.2	4.3%

Dollars in Millions—Continued

In Then-Year Dollars

	Research & Development	Testing	Production	Total Advanced Concepts	Weapons Activities	Advanced Concepts/ Weapons Activities
FY 1990	66.5	63.3		129.8	3,546.2	3.7%
FY 1991	63.6	106.4		170.0	3,846.3	4.4%
FY 2003	15.0			15.0	5,961.3	0.3%
FY 2004	21.0			21.0	6,378.0	0.3%

Mrs. WILSON. With respect to a program that relates to the modernization of the U.S. nuclear stockpile, the MESA project at Sandia, I noticed in your budget that the amount requested was less than half the amount we were expecting to be in your budget for this year to keep the construction on schedule. I wondered if you could talk a little about that. Can you provide a general sense of what is going on in the MESA project? And why is this going to be delayed?

Dr. BECKNER. In October 2002, the Secretary of Energy approved the final budget, schedule, and scope of the MESA project to meet Defense Programs mission needs, consistent with the National Nuclear Security Administration's Future Years National Security Plan and the Integrated Construction Program Plan (ICPP). The ICPP was developed in coordination with the national laboratories and plants to meet the new construction needs of the nuclear weapons complex. The resulting plan for MESA provided for the near-term needs of the stockpile life extension refurbishment but delayed some components of MESA that provide for longer term integration of microsystems technology for warhead applications. MESA has been designed so that components can be constructed earlier or later, depending on available funding. As a result, the MESA project is well aligned with the rest of the weapon program budget.

In Fiscal Years (FY) 2001 and 2002, Defense Programs funded those portions of the MESA project that supported the immediate needs of the stockpile life extension refurbishments. These included retooling of the existing Microsystems Development Laboratory and other systems upgrades. In addition, exiting utilities around the site of the future MESA facilities were re-routed to enable the start of construction of the new Microsystems Fabrication Facility and Microsystems Laboratory in FY 2003. The two new facilities could become operational in the 3rd quarter of fiscal year 2007 which would allow incorporation of new and advanced technologies into upcoming weapon refurbishments for the active stockpile. The weapons integration facility is a separate, adjacent building that was delayed until FY 2008 but fully integrated in the overall design of MESA.

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